

In The
United States Court of Appeals
For The Federal Circuit

CLASSCO, INC.,

Appellant,

v.

APPLE, INC.,

Appellee.

**APPEAL FROM THE UNITED STATES PATENT AND
TRADEMARK OFFICE PATENT TRIAL AND APPEAL BOARD
REEXAMINATION CONTROL NO. 95/002,109**

BRIEF OF APPELLANT

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Dated September 23, 2015

CERTIFICATE OF INTEREST

Undersigned Counsel certifies the following:

1. The full name of every party or amicus represented by me is:

ClassCo, Inc.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

ClassCo, Inc.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

None

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this Court are:

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STATEMENT OF RELATED CASES

No other appeal in or from any of the U.S. Patent and Trademark Office proceedings involved in the present appeal has previously been before this or any other appellate court.

This Court's decision in the present appeal will directly affect *ClassCo, Inc. v. Nokia Corp. et al.*, Case No. 1:10-cv-12282 (D. Mass.), and *ClassCo, Inc. v. Apple, Inc., et al.*, Case No. 1:11-cv-06241 (N.D. Ill.). Both are for infringement of ClassCo's U.S. Patent No. 6,970,695, asserted claims of which were held invalid by the Patent Trial and Appeal Board ("PTAB") in the reexamination under appeal.

STATEMENT OF JURISDICTION

Pursuant to 35 U.S.C. § 134(b) (2011) and 35 U.S.C. § 315(a) (2002), the PTAB had jurisdiction to review the final rejections by the examiner in *inter partes* reexamination no. 95/002,109 of ClassCo's '695 patent. On April 21, 2015, the PTAB entered its final Decision on Appeal, affirming the examiner's decision to reject each of the claims appealed. (A1-A16) In accordance with 35 U.S.C. § 141 (2002) and 35 U.S.C. § 142 (1984), ClassCo filed a timely Notice of Appeal to this Court on June 12, 2015. This Court has jurisdiction over the appeal pursuant to 28 U.S.C. § 1295(a)(4)(A) (2011).

STATEMENT OF THE ISSUES

ClassCo's '695 patent issued with claims 1-36. Earlier *ex parte* reexamination no. 90/011,679 canceled claims 1, 11-13, 15, 16, 19-22, 25, 31-33, 35, and 36. (A30-A31)

In current *inter partes* reexamination control no. 95/002,109, the USPTO examiner rejected claims 2-5, 7, 9, 10, 14, 17, 18, 23, 26-30, and 34. Claims 6, 8, and 24 are not being reexamined. (A1078) In its appeal to the PTAB, ClassCo designated claim 2 as representative of all of the claims except for claim 14, which ClassCo argued is patentable in its own right. In the Decision on Appeal, the PTAB affirmed the examiner's rejection that claims 2 and 14 of the '695 patent were unpatentable under 35 U.S.C. § 103(a) over U.S. Patent No. 4,894,861 to Fujioka et al. in view of U.S. Patent No. 5,199,064 to Gulick et al. (A15) In the present appeal all of the claims will stand or fall with claim 2, except for claim 14 which is argued separately on its own merits.

The issue presented for appeal is whether the PTAB committed reversible error in affirming the examiner's rejection of claims 2 and 14 as reciting subject matter that would have been obvious from Fujioka in view of Gulick.

STATEMENT OF THE CASE

ClassCo, Inc., is a small, privately held company co-founded by Mr. Luneau and two associates in 1993. Second Declaration of David J. Luneau dated October

15, 2013 (“2nd Luneau Declaration”), para. 14. (A1820) Mr. Luneau is the president of ClassCo and the named inventor on the ‘695 patent, which issued on November 29, 2005. Declaration of David J. Luneau dated June 13, 2011, in Civil Case No. 1:10-CV-12282 (D. Mass.) (“Luneau Litigation Declaration”), para. 4. (A1670) The patent expired on January 29, 2012.

The ‘695 patent emphasizes an advantage of the patented caller announcement apparatus: “The invention makes it possible to screen incoming telephone calls without the aid of a special Caller ID telephone set or auxiliary Caller ID display terminal.” Abstract. (A17) Singled out is a claim limitation not found in any prior art:

One of the most important features of the invention is its ability to deliver a vocalized announcement of the caller's identity over a standard telephone set's receiver without the call having actually been declared answered by the telephone company, and without the caller having been cut through.

Id. (emphasis supplied)

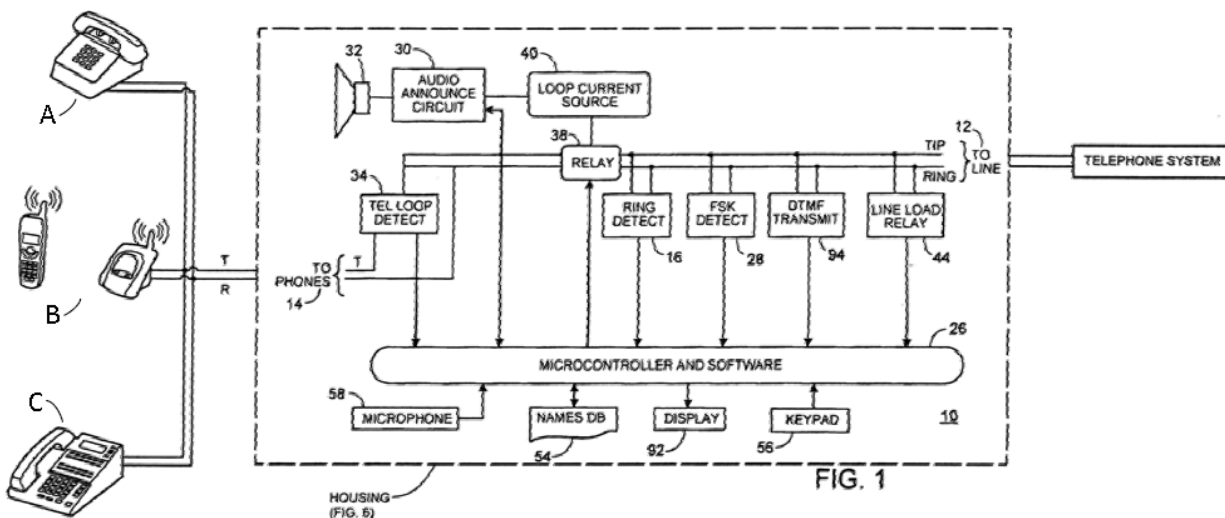
Changes to the North American telephone network “opened the door” to new services like Caller ID. Col. 1, lines 19-28 (A24). Mr. Luneau recognized a unique way to take advantage of this service without requiring the purchase of costly special telephones or separate Caller ID terminals. *See* Second Declaration of James R. Bress dated October 15, 2013 (“2nd Bress Declaration”), para. 5. (A1767) With Mr. Luneau’s invention, a user records or otherwise creates identity

information and stores it in association with a particular Caller ID. Then when a call is received, the apparatus announces the identity information over a speaker *in the user's already installed standard telephone*.

This feature, explicitly embodied in the claimed “audio announcing circuit,” is not disclosed in Fujioka or Gulick. The record before the Court includes a wealth of objective evidence of praise in public media and by ClassCo customers, commercial success, and millions in licensing revenue, all directly tied to the features in the ‘695 patent’s claims.

I. THE PATENTED CALLER ANNOUNCEMENT APPARATUS

The following figure prepared by Mr. Bress is based on Figure 1 of the '695 patent to illustrate an embodiment of the claimed apparatus. 2nd Bress Declaration, para. 8. (A1769) This discussion identifies in quotes claim terms corresponding to features of this embodiment. The claims in the '695 patent (A28-A29) as issued are the subject of this appeal.



A housing at a called station is interposed between a telephone network (“telephone system”) connection point 12 and one or more standard extension telephone sets (“a called telephone at a called station”) connected to the housing at a point 14. The telephone sets can be any of a known corded telephone A, cordless telephone B, or speakerphone telephone C. Col. 4, lines 16-20; col. 5, lines 51-53. (A25; A26) Incoming calls from the telephone network include caller voice signals (“voice signals representative of audio detected by an audio transducer of the caller telephone”) used by any of the telephone sets to produce audio from its speaker (“the voice signals are processed by the called telephone to produce audio using an audio transducer at the called station”). Col. 4, lines 44-46. (A25)

Incoming calls also include ICLID (“Caller ID”) signals. Col. 4, lines 20-30 and 55-60. (A25) Caller ID identifies the caller station’s telephone number, col. 1, lines 29-32 (A24), and constitutes the claimed “caller identification signals representative of [an] identity associated with the caller station.” The telephone number is the claimed “caller identification data corresponding to the . . . caller identification signals.”

An FSK decoder 28 (“signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding

to the extracted caller identification signals”) extracts caller identification data (the caller’s telephone number) coded in the incoming caller identification signals. Col. 6, lines 11-17. (A26) A microcontroller 26 checks the decoded caller identification data against entries (“identity information”) stored in the names database 54 (which includes claim 2’s “memory storage for storing identity information associated with the caller identification data”). Col. 5, lines 64-67; col. 7, lines 29-32. (A26; A27)

To create identity information prior to receiving calls, the user enters a telephone number via a keypad 56, and then uses a microphone 58 to record an audio announcement, which the user keys with the entered telephone number in the database 54. Col. 8, lines 34-47; Fig. 5 (SERVICE state). (A27; A22) The recorded audio corresponds to the claimed “identity information associated with caller identification data.” Per claim 14, a single audio recording can be keyed to multiple telephone numbers. Col. 7, lines 31-32; col. 8, lines 55-63. (A27)

In a NEW CALL state all of the extension telephones are on hook. If the user takes one of the telephones (see figure, page 4) off hook in response to an incoming call, the claimed audio announcing circuit plays the stored audio identity information *over that telephone’s voice signal speaker*. Col. 7, lines 47-54 (process 244). (A27)

In a CALL WAITING state the user is already on a primary call at one of the extension telephones. A call-waiting tone from the telephone system indicates the presence of another call. Col. 4, lines 58-62; col. 7, lines 59-62. (A25; A27) The system sends ICLID data for the Call Waiting call, and then the claimed audio announcing circuit plays the stored audio identity information *over that telephone's voice signal speaker*. Col. 8, lines 1-18 (processes 318, 322). (A27)

That is, in both the NEW CALL and CALL WAITING states, the claimed “audio announcing circuit [is] operative to use the identity information to produce audio using the [caller voice] audio transducer at the called station.”

II. CLAIMS 2 AND 14 OF THE ‘695 PATENT

In this appeal the patent owner focuses on claim 1’s audio announcing circuit that is “operative to use the identity information to produce audio using the [caller voice] audio transducer at the called station,” and claim 2’s added limitation whereby the processing unit (of claim 1) “comprises memory storage for storing identity information associated with the caller identification data.” (A28)

Claim 14 of the ‘695 patent also depends from claim 1, thus including its audio announcing circuit, and adds that “the identity information is associated with plural items of caller identification data.” *Id.*

III. THE BOARD OPINION

The examiner entered three separate rejections under 35 U.S.C. § 103(a): (1) Fujioka in view of Gulick, Right of Appeal Notice (“RAN”) at 3-11 (A1080-A1088); (2) Fujioka in view of U.S. Patent No. 4,998,208 to Marui et al., *id.* at 11-18 (A1088-A1095); and (3) Japanese Unexamined Patent Appln. Pub. No. H2-177648 to Iwaya in view of Gulick, *id.* at 18-26 (A1095-A1103). The patent owner appealed all three rejections to the PTAB. Patent Owner Appeal Brief, at 5. (A1201) The PTAB affirmed the rejection based on Fujioka in view of Gulick, but deemed it “unnecessary to reach the propriety of the Examiner’s decision to reject [the] claims on a different basis.” Decision on Appeal, at 14. (A15)

Accordingly, only the rejection based on Fujioka in view of Gulick is before the Court in the present appeal.

The PTAB acknowledged the necessity under *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966), of making factual determinations regarding (i) the scope and content of the prior art, (ii) any differences between the prior art and the claims at issue, and (iii) the level of ordinary skill in the art. Decision on Appeal, at 4. (A5).

A. The Scope and Content of the Prior Art

Fujioka. Fujioka’s telephone has a speech generating section C combined with a telephone set section A, which includes a speech circuit 5 and a handset 4. Fig. 2. (A1254) Section A’s speech circuit 5 receives caller voice signals from a

telephone system and provides them to the handset speaker. Col. 2, lines 11-44. (A1256) A keyboard 12 is used to enter telephone numbers and corresponding ID information, which a central processing unit 14 registers together in a memory 15. Col. 3, lines 53-64. (A1257)

A control circuit 1 extracts the calling station telephone number from an incoming call. When the telephone number matches one previously registered in the memory 15, a speech generator 16 plays the corresponding ID information on separate speaker 6. Col. 4, lines 10-37. (A1257) Fujioka's speaker 6 "provid[es] an audible indication of the ID information such as the originating subscriber's [calling party] name" so it can be heard "when the terminating subscriber [called party] is away from the telephone terminal." Col. 4, lines 37-39; col. 2, lines 60-62. (A1257; A1256) Fujioka's Figure 3 embodiment uses a digital (ISDN) telephone set section A instead of Figure 2's analog version, but both embodiments operate the same. Col. 5, lines 50-56. (A1258)

The patent owner recognizes that Fujioka provides audible "identity information." Patent Owner Appeal Brief, at 8. (A1204). However, the speaker 6 used for identity information does not produce caller voice signals; they are produced by a separate speaker in the handset 4. If no identity information is stored in the memory 15, Fujioka produces unassociated audio using the speech generator 16, or unassociated tonal ringing call-alerting by "merely ring[ing] a bell of the

telephone set as is conventional.” Col. 4, lines 25-39. (A1257) (Unassociated tonal ringing call-alerting “is the type of unassociated call alerting produced by the alerter of virtually every standard telephone, including Gulick’s loudspeaker 30.” 2nd Bress Declaration, para. 18. (A1775))

The manner in which Fujioka enters identity information into its memory permits one item of identity information to be associated with one telephone number. It is possible to repeat an entry of an item of identity information and associate it with another telephone number. Col. 3, lines 52-64. (A1257); Declaration of James R. Bress, dated January 7, 2013 (“1st Bress Declaration”), para. 55 (A1451); Respondent’s Appeal Brief, at 16-17 (A2003-A2004).

Gulick. Gulick discloses a “hands-free, multiple feature telephone unit 12” that connects to a digital controller 14 with a standard telephone handset 34 for caller voice signals. Col 2, lines 57-59; col. 3, lines 42-47 and 62-66. (A1294; A1295) Hands-free speakerphone operation is provided by a microphone 28 for the user’s speech, with a loudspeaker 30 for caller voice signals and for ringing tones from a tone ringer 46. Col. 9, lines 20-33. (A1298)

Summary. Fujioka uses a speaker 6 for providing an audible indication of identity information informing the user who is calling. Fujioka reproduces caller voice signals over a separate speaker in the handset 4. Fujioka also discloses alerting the user to the presence of a call by “ring[ing] the bell of the telephone set

as is conventional.” In Gulick’s hands-free operation mode the loudspeaker 30 is used for caller voice signals and for ringing call alerting (corresponding to Fujioka’s “ring[ing] the bell . . . as is conventional”).

In other words, Fujioka discloses three separate elements for three separate functions: (i) call alerting by ringing a bell, (ii) reproducing caller voice signals using a handset, and (iii) announcing identity information over the speaker 6 to inform the user who is calling. Gulick discloses one element, the loudspeaker 30, for two separate functions (i) call alerting by producing ringing, and (ii) reproducing caller voice signals. Neither discloses using the same speaker for the functions of (i) announcing identity information (that is, the function of informing the user of the caller’s identity by producing user-entered identity information retrieved using caller ID data received with the call *and* (ii) reproducing caller voice signals (that is, the function of conducting a voice conversation with the caller). Both of those functions are provided by the audio announcing circuit described in the appealed claims.

B. The Differences Between the Prior Art and the Claims at Issue

Claim 2. Apple agrees that Fujioka does not disclose using the same speaker for announcing identity information (the function of informing the user of the caller’s identity) and for reproducing caller voice signals (the function of conversing with the caller). Respondent’s Appeal Brief, at 7. (A1994) In other

words, Apple agrees that Fujioka does not disclose the '695 patent's claimed audio announcing circuit. The examiner also agrees. RAN, at 4-5. (A1081-A1082) And the PTAB agreed with the examiner. Decision on Appeal, at 4-5. (A5-A6)

Apple further agrees that Gulick discloses using the same speaker (loudspeaker 30) for ringing tones (the function of alerting the user to the presence of an incoming call) and caller voice signals (the function of conversing with the caller). Dr. Sprang stated, "As it pertains to this discussion, Gulick discloses using the same speaker to output a ringing signal that announces an incoming call as well as the audio signal received from the caller. [citation omitted]" Declaration of Ralph Sprang Under 37 C.F.R. § 1.132 dated February 5, 2013 ("1st Sprang Declaration"), para. 21. (A1730-A1731) The examiner also agrees, RAN, at 5 (A1082), as does the PTAB, Decision on Appeal, at 4-5 (A5-A6).

Nevertheless, the PTAB concluded that the claimed caller announcement apparatus would have been obvious as a matter of law, in spite of agreeing that no reference discloses the limitation of an audio announcing circuit "operative to use the identity information to produce audio using the [caller voice] audio transducer at the called station." To reach this conclusion, the PTAB first misinterpreted the examiner's reasoning, then affirmed the rejection based on its misinterpretation.

The Decision on Appeal began by quoting from the RAN:

The Examiner finds that "Fujioka does not specifically disclose outputting [the] call announcing audio signal with identity information

through the same audio transducer that produces the voice signals received at the called station from the caller” but that “Gulick . . . teaches using the same audio transducer to output a ringing signal announcing an incoming call as well as the audio signal received from the caller (column 3, lines 3-16; column 9, lines 27-38).” RAN 4-5. The Examiner further finds that “[t]he combination of these known elements according to known methods would yield predictable results.” RAN 5. We agree with the Examiner.

Decision on Appeal, at 4 (A5) (emphasis supplied).

But the PTAB omits a paragraph in the RAN between the quote of what “Gulick teaches” and what the examiner “further finds” to support her rejection:

Regarding claims 2-5, 7, 9, 10, 14, 17, 18, and 23, it would have been obvious to a person of ordinary skill in the art to use a same audio transducer for call announcement and for voice signals from the caller as taught by Gulick in the system disclosed by Fujioka in order to advantageously provide a non-handset, external speaker output for the voice signal from the caller and thereby enable the called person to communicate with the caller in a hands-free (speakerphone) manner. Fujioka already discloses that the audible call announcement includes identity information; Gulick is relied upon to teach using a same speaker for call announcement and the call itself. The combination of these known elements according to known methods would yield predictable results.

RAN, at 5 (A1082) (emphasis supplied).

Therefore, the examiner’s starting point, underlined above but elided by the PTAB, was that it would have been obvious from Gulick, which discloses a telephone capable of “hands-free (speakerphone) operation,” to provide Fujioka with a speaker for caller voice signals which would enable Fujioka to operate “in a hands-free (speakerphone) manner.” But the patentability of the claimed invention

does not depend on the obviousness (or not) of designing a Fujioka telephone capable of operating in a “hands-free (speakerphone) manner.”

The examiner (and the PTAB) concede that providing Fujioka with a “non-handset, external speaker output for the voice signal from the caller” (per Gulick) does not *a priori* result in the patent owner’s claimed “audio announcing circuit operative to use the identity information to produce audio using the [voice signal] audio transducer at the called station.” The examiner’s stated rationale (with which the PTAB agreed) for supplying that missing claim limitation is that Gulick “teach[es] using a same speaker for call announcement and the call itself.” Decision on Appeal, at 4 (A5) (emphasis supplied). Gulick actually contains no “teaching” about call “announcement” or “announcing”; neither Gulick nor Fujioka ever uses those terms to describe the function of alerting the user to presence of an incoming call, or any function performed by any component. Even using the term call “announcement” to describe the function of alerting the user to the presence of an incoming call (“ringing”) betrays the use of hindsight by the PTAB and the examiner (and Apple), since the term “announcement” comes from the ‘695 patent.

No “teaching” in Fujioka equates its “audible indication of the ID information” with the call alerting function of Gulick’s “ringing signal.” Fujioka states that its audible indication of identity information can replace the caller ID

display, col. 4, lines 47-49 (A1257), but says nothing about replacing the call alerting (ringing) function of the bell. Nothing in Fujioka or Gulick would have suggested changing any of the functions of these respective elements, except perhaps using Gulick's loudspeaker 30 instead of Fujioka's bell for ringing call alerting. *See* Patent Owner Appeal Brief, at 13. (A1209)

The question before this Court is whether it would have been obvious to a person of ordinary skill in the art to provide a hands-free telephone with claim 2's audio announcing circuit for performing the function of using identity information to inform the user of the identity of a caller based on user-entered identity information retrieved using caller ID data, via the same speaker used for conversing with the caller.

Claim 14. The PTAB missed the patent owner's argument entirely. The PTAB says the patent owner argued that "under a proper construction of the term, Fujioka and Gulick fail to disclose or suggest 'identity information.'" Decision on Appeal, at 8. (A9) However, the patent owner agreed that the "audible indication of the ID information" produced by Fujioka's speaker 6 "corresponds to the '695 patent's announcement of associated identity information." Patent Owner Appeal Brief, at 8. (A1204)

The PTAB never addressed the patent owner's actual argument regarding the patentability of claim 14: that Fujioka does not disclose identity information

“associated with plural items of caller identification data [telephone numbers].”

Patent Owner Appeal Brief, at 25-26. (A1221-A1222)

C. The Level of Ordinary Skill in the Art

A person of ordinary skill in the art would have an undergraduate degree in electrical engineering and be familiar with the design of analog and digital telephones, caller ID units, answering machines, and speakerphones, for operation in conjunction with the public switched telephone network. 1st Sprang Declaration, para. 12 (A1728); 1st Bress Declaration, para. 6 (A1426).

IV. OBJECTIVE EVIDENCE OF NONOBVIOUSNESS, INCLUDING PRAISE BY OTHERS, COMMERCIAL SUCCESS, AND LICENSING OF THE CLAIMED APPARATUS

KSR Int’l Co. v. Teleflex, Inc., 550 U.S. 398, 406 (2007), reiterated that obviousness was to be analyzed according to *Graham v. John Deere Co.*, *supra*, including the consideration of objective evidence of nonobviousness. That includes praise and recognition by others, commercial success, and licensing. *See, e.g.*, *Rambus Inc. v. Rea*, 731 F.3d 1248 (Fed. Cir. 2013); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d 1340 (Fed. Cir. 2012); *Tec Air, Inc. v. Denso Mfg. Michigan, Inc.*, 192 F.3d 1353 (Fed. Cir. 1999).

The Decision on Appeal dismissed the patent owner’s objective evidence of nonobviousness on the grounds that there is insufficient nexus between the claimed

invention and the objective evidence of nonobviousness. (A9-A15) The patent owner respectfully disagrees.

Since 1995 some 200,000 ClassCo caller announcement units have been sold with '695 patent claim 1's "audio announcing circuit" and claim 2's "memory storage for storing identity information," and with claim 14's ability to associate one item of identity information with "plural items of caller identification data." Declaration of David J. Luneau dated January 7, 2013 ("1st Luneau Declaration"), paras. 1 and 2(b) (A1645-A1646); 2nd Luneau Declaration, paras. 12 and 14 (A1820-A1821) The record establishes, without factual contradiction, that these ClassCo products have garnered public praise and unsolicited testimonials from customers relating to the features in claim 2 and claim 14, and that the inclusion of the features of claims 2 and 14 into those products contributed to their commercial success to inducing licensees to take licenses under the patent.

Public Praise. The record contains examples of industry praise and praise in a general circulation newspaper. In the excerpts below, italics denote praise and underlining demonstrates its nexus to the relevant claim limitation.

The first article is from Teleconnect Magazine, entitled "Who's There!?? Speak Up!!":

On the left side of the device is a switch marked "handset." When the switch is off, the device announces calls through its speaker, and lets you answer them directly — calls can be answered by lifting the handset of any attached phone. When the switch is on, the VACID [Voice Announce Caller ID]

switches the phone out of the loop, so you can lift the handset without “answering the call.” It then announces over the inside line — you can answer by pressing Flash (or briefly bouncing the hook-switch), or just hang up. This feature really adds utility — it frees you from being tied to the immediate proximity of the box, and lets the device serve multiple extensions (dispersed through an apartment, for example) and wireless phones.

When you first plug in the device, it's unprogrammed. As calls arrive, their Caller ID data appears on the LCD display, and the built-in voice announces their number. If you press the RECORD button while a current record is on the display (i.e., before another call comes in), the box beeps, and lets you record five-second voice announcement that will be used, in future, to announce this caller. As noted — up to 20 such announcements can be recorded.

Teleconnect Magazine, October 1995, pages 40-41 (emphasis supplied). Luneau Exhibit 2. (A1653-A1654) The underlined statements describe the feature of claims 2 and 14 that uses the same speaker for caller voice signals and identity information. The article explicitly praises this feature: “*This feature really adds utility — it frees you from being tied to the immediate proximity of the box . . . ,*” meaning that the user can hear the identity information wherever an extension is located. It also mentions the claim 2 feature of storing identity information in a memory.

Teleconnect Magazine, as a media leader in the telecommunications industry, for many years conducted an annual Computer Telephony Show. ClassCo products having the features of claims 2 and 14 won the Best of Show award at Teleconnect’s 1996 show. Luneau Litigation Declaration, para. 54 (A1679); 1st Luneau Declaration, para. 5 (A1646). ClassCo products with the features of claims

2 and 14 also received Innovation Design Awards at the Consumer Electronics Shows in 1997 and 2000. Luneau Litigation Declaration, para. 53 (A1679); 1st Luneau Declaration, paras. 2(a), 5 (A1645-A1646).

A 1996 article in Computer Telephony contained another example of industry praise:

ClassCo (Hopkinton, NH – 603-746-6500) has *one of the neatest standalone Caller ID boxes on the market*. Their Talking Caller ID 9500 box connects to your phone line and has a jack for your phone and an answering machine. You can record a voice message for up to 20 different numbers and whenever any of them call, it plays the message back over the speaker. . . .

ClassCo's Talking Caller ID 9500 box connects to your phone line and has a jack for your phone and an answering machine. You can record a message for specific phone numbers to hear when they call in. If the 9500 is connected right as the phone line comes into your home, and all the phones are behind it, as soon as you pick up the phone it can play the name of the caller (assuming that it is one of the 20 in the list) before connecting the caller.

Computer Telephony, July 1996, page 114 (emphasis supplied). Luneau Exhibit 4.

(A1825) This article describes the claimed features incorporated into the product (storing recorded names and playing them on the phone “you pick up”), and calls it “*one of the neatest standalone Caller ID boxes on the market.*”

A 1998 review The Dallas Morning News, a general circulation publication, also praises the claimed features in ClassCo products:

Meet CIDney, phone receptionist for hire. *She works hard, her price is right and she speaks only when necessary.*

CIDney, of course, is Classco's new line of **talking Caller ID** machines, which belt out incoming 10-digit phone numbers in a computerized voice.

Full **Caller ID** information such as the name of the person or company can also be viewed on the machine's readout.

If you don't care for the quality of the device's female voice, press the record button after the call is completed, then enter your personal recording - "Mother calling," for example - to introduce that number when it comes through again. Your own voice may be less abrasive than the computer's.

The CIDney 9500CW model offers two other *nifty features* if you have Call Waiting and/or a cordless phone. With Call Waiting, you will still hear the beep for the incoming call, but the 9500CW then announces the incoming call while the call in progress is temporarily muted. On a cordless phone, the call will be announced through the handset.

This machine stores the numbers for 64 incoming calls and can introduce 20 of them by name or phrase. . . .

The Dallas Morning News (the Archive), Oct. 20, 1998 (bold emphasis in original; additional emphasis supplied). Luneau Exhibit 4. (A1829-A1830) This article specifically names the claimed features (underlined) in the ClassCo CIDney product, and describes it with laudatory phrases like, "*She works hard, her price is right and she speaks only when necessary.*" It explicitly calls a "*nifty feature[]*" the ability to hear the identity information announcement ("your personal recording") on a cordless phone whether or not you are on a call at the time. The ability to hear the recorded announcement played back over the telephone handset of a cordless phone is a clear reference to announcing identity information over the caller voice speaker of a telephone connected to the housing at point 14, not the separate speaker 32 in the housing 10; *see* figure, page 4 *supra*).

Another example of industry praise is in literature accompanying the introduction in 1995 and 1996 of ClassCo products under the Magnavox brand of

Philips Consumer Electronics, pursuant to a royalty-bearing 1995 license granted by ClassCo to Philips. This material also praises the features of a caller announcement apparatus with the features of claims 2 and 14 of the '695 patent, including the audio announcing circuit not found in any prior art. The first example is a Philips news release from April 1995:

Voice-Announce Caller ID

With its introduction of the first ever available voice-capable caller ID units, Magnavox redefines the marketplace for caller ID offerings. Magnavox goes a step beyond the simple digital display of the phone number and name of person calling: its new exclusive VoiceAnnounce circuitry actually announces the caller's name and number via a built-in speaker, giving consumers the option of whether or not to take the call. . . .

The CIT100's unique configuration enables expanded utilization of stored messages and phone numbers. Users can store up to 30 names available for voice announcing plus an additional 35 numbers for display only. Users can also store multiple phone numbers for the same name--all of which are retained after a power outage or power surge. The unit works with existing telephone sets, including cordless phones, which makes this the first product of its kind to deliver call-ID capability outside the house. Magnavox will announce additional units to the line in late 1995.

MAGNAVOX INTRODUCES NEW CONVENIENCE PRODUCTS FOR THE

HOME, News Release, Apr. 4, 1995 (emphasis supplied). Luneau Exhibit 5.

(A1832-A1833) Philips describes the claimed features (underlined) in its new CIT100 product, saying that its "unique configuration" makes it "the first product of its kind to deliver call-ID capability outside the house." It also enables storing names (identity information), as recited in claim 2, and multiple phone numbers (caller identification data) for the same name (identity information), as recited in

claim 14. The praise of working with cordless phones, which “*makes this the first product of its kind to deliver call-ID capability outside the house,*” is a reference to the caller voice speaker of a cordless telephone connected to the housing at point 14 (figure at page 4, *supra*). This is different from the “built-in speaker” referred to by Philips, which corresponds to the speaker 32 in the housing, which would be inside the house.

Another Philips news release from January 1996 called the claimed caller announcement apparatus “*revolutionary*” for its inclusion of the features of claims 2 and 14, specifically including the claimed audio announcing circuit:

Know Who’s On First Before Answering

Hearing is believing with Magnavox's *revolutionary Voice Announce[TM] Caller ID* that tells the consumer -- in his or her own voice -- who is on the other end of the ringing phone before he or she picks it up. The new caller ID unit was displayed today along with Philips Consumer Electronics Company's (PCEC) new line of cordless telephones in Magnavox booth #1353 at the Winter Consumer Electronics Show which runs from January 5-8 at the Las Vegas Convention Center.

“Convenience is key when it comes to pleasing the American public,” said Gary Pearson, Vice President and General Manager, Business Development, Philips Consumer Electronics Company. “Our history in consumer electronics has shown that successful products are those that are smarter, more useful and easier for the consumer to use. Caller ID with a read-out of the number was the first generation. *Now we've made the product even more user-friendly by introducing a Voice Announce[TM] feature indicating who is on the phone no matter where the consumer is in the house and eliminating the need for more than one caller ID box.*” . . .

The Magnavox Voice Announce[TM] Caller ID features both a desk and wall mount, stores up to 30 recorded names or numbers, and has the capability to associate a name with multiple telephone numbers. It works with existing telephone sets, including cordless telephones, allowing the user

to hear who's calling even from outside the home. No other caller ID on the market allows this amount of flexibility, according to Pearson.

HEARING IS BELIEVING WITH MAGNAVOX'S REVOLUTIONARY VOICE

ANNOUNCE[TM] CALLER ID, News Release, Jan. 5, 1996 (emphasis supplied).

Luneau Exhibit 5. (A1835-A1838)

This news release recognizes the ability of the user to hear recorded identity information on a telephone handset “even from outside the home [on a cordless phone]” or “no matter where the consumer is in the house,” saying that “[n]o other caller ID on the market allows this amount of flexibility.” An additional advantage praised by Philips in this news release is that the product “*eliminate[es] the need for more than one caller ID box,*” thus reducing the cost of providing caller ID capability in more than one room of a house.

Customer Testimonials. The record also includes unsolicited testimonials from ClassCo customers who took the time to write to ClassCo and express in their own words how the patented ClassCo products provided features they wanted in caller ID products. The products praised in the customer communications collected in Luneau Exhibit 3 had all of the features of claim 1, along with the memory storage of claim 2 and claim 14's ability to associate a single item of identity information with plural items of caller identification data (telephone numbers). 2nd Luneau Declaration, para. 1. (A1645) These testimonials establish users'

appreciation of ClassCo products attributable to their unique audio announcing circuit.

One customer commented on how ClassCo products “*revolutionized*” call screening:

Your voice-announced unit has *revolutionized* the call screening process. We can now hear the caller’s name announced by the unit, as well as through the handset of our cordless phone (or any phone in the house no matter how far from the unit).

Letter to David J. Luneau from Gary M. Weiss, M.D., dated Mar. 17, 1996 (emphasis supplied). (A1656) Dr. Weiss specifically mentions his appreciation of the feature (the claimed audio announcing circuit) that uses the speaker in “the handset of our cordless phone (or any phone in the house no matter how far from the unit).” This is a reference to a cordless telephone connected to the housing at point 14 shown in the figure at page 4, *supra*.

Mr. Blair Vickery of Atlanta, Georgia, provided this unsolicited testimonial:

Being able to hear who's calling over the cordless handset, even when I'm already on the phone, is especially useful. If I'm talking to our tax attorney and expecting other important calls, but don't want to interrupt to find it's my mother-in-law (or anyone else who can't believe that any call is more important than theirs and barges right on with their agenda) *it's so nice to have.* The call waiting bleep is followed by the announcement of the phone number (or the name if I've prerecorded it) which only I can hear.

E-mail to sales@classco.com, dated Mar. 26, 1997 (emphasis supplied). (A1657)

Again, the reference to the functionality provided by the audio announcing circuit of claim 2 (via claim 1) is unmistakable: “Being able to hear who's calling over the

cordless handset [from the speaker for caller voice], even when I'm already on the phone, is especially useful.” Mr. Vickery calls attention to yet another advantage of the claimed invention: the privacy it provides when the recorded identity information is announced over the caller voice speaker.

A review by Mr. Ken Hazenfield of Dayton, Ohio, offered this praise for the feature in claim 14:

I can even match up several phone numbers for the same person (cell, home, work)—of course, I have to re-read how to do it, but directions are simple to follow.

Online review by K. Hazenfield, dated Oct. 17, 2006 (emphasis supplied). (A1661-A1662) Although claim 1’s audio announcing circuit is not specifically mentioned, Mr. Luneau confirmed that this was in fact a ClassCo product with that feature. 1st Luneau Declaration, para. 1. (A1645)

Another customer testimonial highlights the utility of these ClassCo products for individuals with disabilities, such as impaired eyesight. Mr. Lewie Johnson of Bethlehem, Pennsylvania, wrote:

I got this as a Christmas gift for my wife *on the recommendation of her computer instructor*. She lost her sight to diabetes in 2001, and is learning to use the internet with her disability. Her instructor is also visually impaired and uses the same product. The *best feature* of this product is the caller I.D. option where it speaks the number while you are already on the phone with someone.

Online review by Lewie C. Johnson, dated Jan. 21, 2010 (emphasis supplied). (A1665) The customer refers to “*the best feature of the product*” being that it

speaks the number of the caller while you are already on the phone with someone,” referring to the CALL WAITING state. See page 7, *supra*.

Commercial Success. As already noted, ClassCo has sold more than 200,000 units of “ClassCo products,” by which Mr. Luneau meant products including claim 2’s audio announcing circuit using stored identity information to produce audio using the caller voice signal speaker and claim 14’s ability to store identity information associated with plural items of caller identification data. 1st Luneau Declaration, paras. 1 and 2(b) (A1645-A1646); 2nd Luneau Declaration, paras. 12 and 14 (A1819-A1821).

Annual sales of these ClassCo products grew from about \$160,000 in 1995 to about \$1,000,000 in 1998, doubling between 1997 and 2002, rising to a 3.7% share—against giant competitors in the same market such as AT&T, Philips, Sony, and Northern Telecom. 2nd Luneau Declaration, paras. 13-15. (A1820-A1821) Mr. Luneau put these sales into context in the relevant telecommunications market, where ClassCo “competed against cheaper (and sometimes free) Caller ID display devices of large publicly held companies” *Id.*, para. 16. (A1821) Mr. Luneau further stated:

In addition, many of the 200,000 ClassCo products with the features of ‘695 patent claims 2 and 14 were sold as private label products by major telecommunications companies, including BellSouth, SBC Communications, and Verizon. The ability to generate interest in ClassCo products from significant telecommunications companies is further evidence of the

commercial success of those products. See the First Bress Declaration, para. 63. [(A1454-A1455)]

Id., para. 17.

Licensing. The first license of the ‘695 patent was taken in connection with the products sold by Philips/Magnavox described in the press releases quoted above, which explicitly mention the features of claims 2 and 14 as important features of the licensed Philips/Magnavox products.

ClassCo has received over \$5,000,000 in revenue from licenses of the ‘695 patent. Licensees include Philips (discussed above), Panasonic, VTech, Motorola, Sony-Ericsson Mobile Communications, Personal Communications Devices, Pantech Wireless, Research in Motion, and Huawei. Luneau Litigation Declaration, para. 60 (A1681), 1st Luneau Declaration, para. 3 (A1646), 2nd Luneau Declaration, para. 19 (A1822). All of the products licensed under the ‘695 patent have included the features of claim 2 and 14 (including claim 1’s audio announcing circuit). 1st Luneau Declaration, para. 3. Mr. Luneau testified that “the features of claim 2, particularly the audio announcing circuit (via claim 2’s dependency on claim 1), and its memory storage, were prime reasons why the licenses were taken.” 2nd Luneau Declaration, para. 18. (A1821-A1822)

SUMMARY OF THE ARGUMENT

The PTAB found claims 2 and 14 of the ‘695 patent invalid for obviousness based on Fujioka in view of Gulick. A Fujioka telephone has a speaker 6 for the

function of announcing stored identity information, a handset with a speaker that functions to reproduce caller voice signals, and a bell whose only function is to produce ringing call alerting. Fujioka does not disclose the claimed audio announcing circuit operative to use identity information to produce audio *using the caller voice speaker*. A Gulick hands-free speakerphone uses a single loudspeaker 30 for the function of producing ringing signals and reproducing caller voice signals. Gulick does not disclose the claimed audio announcing circuit.

The PTAB erred as a matter of law in analyzing the putative obviousness of the claimed caller announcement apparatus by misapplying a principle from *KSR*: “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” A basic characteristic of a *KSR* combination is that it “only unites old elements *with no change in their respective functions*.” In the ‘695 patent claims the audio announcing circuit uses a single speaker for the function of announcing stored identity information and reproducing caller voice signals. As such, it performs a function *not* performed by any element in the prior art, and the claimed apparatus does *not* only unite old elements with no change in their respective functions.

A *KSR* combination is still patentable if it does not yield predictable results. The PTAB and the examiner contended that a Fujioka/Gulick speakerphone would have yielded predictable results, but neither made any factual findings supporting

that conclusion. Instead, the PTAB put the burden on the patent owner to establish *unpredictable* results (even though the presence or absence of “predictable results” as the PTAB applied the concept is legally irrelevant if the claimed apparatus is not a *KSR* combination). Nevertheless, the patent owner provided unchallenged technical evidence that the use of a single speaker for announcing identity information and for reproducing caller voice signals in a Fujioka/Gulick speakerphone would not have been obvious and that the results of designing such a speaker would have been unpredictable.

Because the prior art fails to disclose the audio announcing circuit limitation, the overwhelming weight of precedent favors a finding of patentability of the claimed caller announcement apparatus containing that limitation. That the claimed apparatus solves a problem not recognized in the prior art further bolsters its patentability. And neither the examiner nor the PTAB have explained how the problem solved by their Fujioka/Gulick apparatus—making Fujioka capable of hands-free speakerphone operation—would have led to the claimed apparatus.

The PTAB further erred as a matter of law in concluding that the patent owner failed to establish a *prima facie* nexus between the claimed invention and the extensive, uncontested objective evidence of nonobviousness, including praise in industry and general circulation media, customer testimonials, commercial success, and licensing revenue.

Regarding claim 14, the PTAB misunderstood that the patent owner had agreed that Fujioka disclosed producing an audible indication of identity information. The patent owner had argued the separate patentability of claim 14 on a completely different ground, which the PTAB did not address. A decision on claim 14 requires construction of the claim term “identity information” and a determination of whether or not claim 14 would have been obvious with the Court’s construction.

ARGUMENT

I. STANDARD OF REVIEW

The scope and content of the prior art, the differences between the prior art and the claims at issue, the level of ordinary skill in the art, objective indicia of obviousness are questions of fact. *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342, 1360 (Fed. Cir. 2012). Whether or not claimed subject matter would have been obvious in a particular factual setting is a question of law. *Id.*

This Court reviews the PTAB’s “ultimate determination of obviousness *de novo*,” and its “factual findings underlying that determination for substantial evidence.” *In re Klein*, 647 F.3d 1343, 1347 (Fed. Cir. 2011).

It is agreed that Fujioka discloses every limitation of claim 2 except its “audio announcing circuit operative to use the identity information to produce audio using the [caller voice] audio transducer at the called station.” The sole

question regarding claim 2 is whether a caller announcement apparatus with this key element, which is missing from the prior art, would have been obvious to a person of ordinary skill in the art—a question of law to be decided by the Court without deference to the PTAB.

Claim 14 adds to claim 1 the limitation that “the identity information is associated with plural items of caller identification data.” The first issue regarding claim 14 is the proper construction of the term “identity information.” The PTAB was silent on that issue. The scope and content of the prior art as it relates to claim 14 are also in dispute, but the PTAB made no findings in that regard.

II. THE PTAB’S OBVIOUSNESS ANALYSIS IS ERRONEOUS AS A MATTER OF LAW BECAUSE CLAIMS 2 AND 14 ARE NOT “COMBINATIONS” IN SUPREME COURT PARLANCE

The PTAB’s obviousness analysis depends entirely on a principle in *KSR*: that “[t]he combination of familiar elements is likely to be obvious when it does no more than yield predictable results.” Decision on Appeal at 4 (citing *KSR*, 550 U.S. at 406). (A5) While all agree that Fujioka discloses every claim 2 limitation except the claimed “audio announcing circuit,” no element in Fujioka or Gulick performs the claimed function of the audio announcing circuit. Accordingly, the PTAB committed legal error by relying on a principle based on the premise that the claims are directed to a “combination of familiar elements.”

A. The Term “Combination” as Used by the Supreme Court “Unites Old Elements With No Change in Their Respective Functions”

The principle relied on by the PTAB, underlined in this excerpt from *KSR*, must be applied in the context of the paragraph in which it appears:

For over a half century, the Court has held that a “patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men.” *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U.S. 147, 152-153 (1950) [parallel citations omitted]. This is a principal reason for declining to allow patents for what is obvious. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. Three cases decided after *Graham* illustrate the application of this doctrine.

500 U.S. at 415-16 (underlined emphasis supplied).

Great Atl. & Pac. Tea Co. summarized the principle:

The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable invention.

340 U.S. at 151, quoting *Lincoln Eng’g Co. v. Stewart-Warner Corp.*, 303 U.S. 545, 549 (1938) (emphasis supplied). *KSR* rephrased it in the form picked up by the PTAB, but it still applies to a situation in which the combination “only unites old elements *with no change in their respective functions.*” 500 U.S. at 416. The claimed audio announcing circuit does not fit that description because it would require changing the functions of speakers in Fujioka or Gulick to provide the function of announcing identity information using a caller voice speaker.

The Court used three cases to illustrate this principle: *United States v. Adams*, 383 U.S. 39 (1966), *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969), and *Sakraida v. AG Pro, Inc.*, 425 U.S. 273 (1976). The *KSR* Court saw *Adams* as involving “a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field.” 550 U.S. at 416. The PTAB did not contend that the claimed audio announcing circuit was “known” from either Fujioka or Gulick and could have been substituted from one into the other.

KSR's summary of *Anderson's-Black Rock* confirms that the PTAB's erred in its application of the principle it took from *KSR*. The *KSR* Court said that *Anderson's-Black Rock* involved “a device combining two pre-existing elements: a radiant-heat burner and a paving machine” in which “[t]he two in combination did no more than they would in separate, sequential operation.” 550 U.S. at 416-17. The '695 patent does not involve a combination of preexisting elements: the claimed audio announcing circuit is not disclosed in any prior art, and therefore this is not an *Anderson's-Black Rock* case. The same applies to *Sakraida v. AG Pro*, *KSR*'s third case exemplifying the principle relied on by the PTAB. The Court said the *Sakraida* patent “simply arrang[ed] old elements with each performing the same function it had been known to perform.” *Id.* at 417 (emphasis supplied). Again, that is not the present case, unless a meaninglessly broad function—like

“producing sound”—is ascribed to all of the involved speakers, which is what Apple argued. Third Party Comments After Patent Owner’s Response to Action Closing Prosecution Pursuant to 37 C.F.R. § 1.947, at 8. (A1921)

Finally, *KSR* itself involved a situation in which all claim limitations were present in a combination of three references and served the same purpose as they did in the references from which they originated. The Court framed the analysis this way, “The consequent legal question, then, is whether a pedal designer of ordinary skill starting with Asano [the primary reference] would have found it obvious to put the sensor on a fixed pivot point.” *Id.* at 424-25. The Court answered in the affirmative, because all of the claim limitations missing from Asano were disclosed in the other references. *Id.* at 426.

In other words, *KSR* is about claims that involve combining *known* elements. *Id.* at 416-17 (emphasis supplied). And it has been interpreted that way in post-*KSR* Federal Circuit jurisprudence:

In contradistinction to *KSR*, this case involves the lack of evidence of a specific claim limitation, whereas *KSR* related to the combinability of references where the claim limitations were in evidence.

K/S HIMPP v. Hear-Wear Tech., LLC, 751 F.3d 1362, 1366 (Fed. Cir. 2014) (emphasis supplied). Indeed, this Court over the years and in varied technical settings has consistently refused to support obviousness rejections based on multiple references if, taken together, they are missing even one claim limitation.

See, e.g., Institut Pasteur v. Focarino, 738 F.3d 1337 (Fed. Cir. 2013); *Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341 (Fed. Cir. 2013); *Star Scientific, Inc. v. R.J. Reynolds Tobacco Co.*, 655 F.3d 1364 (Fed. Cir. 2011); *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 381 F.3d 1371 (Fed. Cir. 2004); *CFMT, Inc., v. Yieldup Int’l Corp.*, 349 F.3d 1333 (Fed. Cir. 2003); *In re Royka*, 490 F.2d 981 (Fed. Cir. 1974) (Rich, J.); *In re Edge*, 359 F.2d 896 (Fed. Cir. 1966) (Rich, J.); *In re Scott*, 323 F.2d 1016 (Fed. Cir. 1963) (Rich, J.).

B. Claims 2 and 14 Are Not Combinations That Unite Old Elements With No Change in Their Respective Functions

The PTAB’s analysis starts by acknowledging that Fujioka’s telephone uses separate speakers for caller voice signals for telephone conversations (“a speaker in the handset 4”) and for identity information that tells the user who is calling (“a speaker 6”). Decision on Appeal, at 5. (A6) Then, the PTAB points to Gulick’s disclosure of a single speaker used to generate ringing to alert the user of the presence of an incoming call and also for caller voice signals for telephone conversations. *Id.*

Next, the PTAB lumps together as “multiple types of data in a telephone system” all of (i) caller voice signals produced by Fujioka’s handset speaker, (ii) identity information announced from Fujioka’s separate speaker 6 to tell the user who is calling, and (iii) ringing produced by Gulick’s speaker 30 to alert the user to the presence of an incoming call. That Gulick also uses the speaker 30 for

caller voice signals is cited as a “known disclosure . . . that a speaker in a telephone system can produce audio derived from multiple types of data within a telephone system (e.g., voice signals or ‘tonal ringing call-alerting’)” The PTAB’s erred legally by never indicating what “old elements with no change in their function” have been combined, or explaining how just knowing that a speaker can have more than one input (“multiple types of telephone data”) would have led to modifying Fujioka to meet the claimed invention.

The PTAB’s reasoning vis-à-vis the claimed invention relies on a person of ordinary skill in the art somehow extracting from Gulick a “teaching” of providing to Fujioka’s speaker 6 additional “telephone data” besides the identity information for which it is already used, and more specifically, to provide it with caller voice signals, thereby changing the function of Fujioka’s speaker. But there is nothing in Gulick that would have suggested using Fujioka’s speaker 6 for caller voice signals. Gulick’s uses its speaker 30 for two types of “telephone data,” namely ringing tones and caller voice signals, neither of which corresponds in any way to Fujioka’s identity information or to the separate and distinct function of Fujioka’s speaker 6 of providing “an audible indication of the ID information such as the originating party’s name.” Col. 4, lines 37-39. (A1257)

Even cases involving combinations of “known elements” require more than a bare, conclusory assertion of obviousness:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit. *See In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”). As our precedents make clear, however, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR, 550 U.S. at 417-18 (italics in original; underlining supplied).

The PTAB provided no reasoning as to why one of ordinary skill in the art would have thought to input caller voice signals to Fujioka’s speaker 6 just because Gulick used its speaker 30 for caller voice signals and unassociated tonal ringing call-alerting. Nor did it provide any findings regarding any “inferences and creative steps that a person of ordinary skill would employ.”

Instead, the PTAB just adopted the examiner’s rationale: “Fujioka already discloses that the audible call announcement includes identity information; Gulick is relied upon to teach using a same speaker for call announcement and the call itself.” RAN, at 5 (A1082); Decision on Appeal, at 4-5 (A5-A6) For that logic to hold, the function of Fujioka’s “call announcement” would have to be the same as the function of Gulick’s “call announcement.” However, in Fujioka that function is to provide “an audible indication of the ID information such as the originating

subscriber's name." In Gulick the function is to provide ringing tones that alert a user to the presence of an incoming call, a function already served in Fujioka by "the bell of the telephone set [that is rung] as is conventional."

The closest the PTAB came to any "articulated reasoning" supporting its obviousness conclusion is that one of ordinary skill would have "understood" from Gulick that "a speaker in a telephone system may (and does) produce audio derived from multiple types of data in a telephone system, including 'tonal ringing call alerting' and 'caller voice signals.'" Decision on Appeal at 5. (A6) The PTAB made no attempt at finding in the factual record any reason why Fujioka or Gulick would have suggested the audio announcing circuit claimed in the '695 patent. The PTAB cited no "effects of demands known to the design community or present in the marketplace" or "the background knowledge possessed by a person having ordinary skill in the art" that would have provided a reason for combining Fujioka and Gulick to arrive at the claimed caller announcement apparatus with its audio announcing circuit missing from both references. *See also Kinetic Concepts*, 688 F.3d at 1342 ("Even if the references disclosed all of the limitations of the asserted claims, which they do not, S&N still needed to proffer evidence indicating why a person having ordinary skill in the art would combine the references to arrive at the claimed invention.")

Paragraph 25 of the 1st Sprang Declaration (A1731-A1732) contains the only “evidence” adduced by Apple as to why a telephone designer of ordinary skill in the art would have found the claimed invention obvious. Dr. Sprang’s testimony comes at the issue backwards:

Moreover, when the features of Fujioka and Gulick are combined, the most obvious and practical combination would use the same speaker for ring indication, voice call audio, and caller identity announcement rather than adding another speaker that is not required.

Id. (emphasis supplied).

The question is not whether to add a speaker to a combination the obviousness of which Dr. Sprang assumes going in. The proper approach starts from the disclosures in the references and asks whether a telephone design engineer of ordinary skill would have seen a reason and found it obvious to change the functions of Fujioka’s identity announcement speaker 6 and Gulick’s speakerphone speaker 30. Dr. Sprang contends that in his combination telephone it would have been cheaper and smaller to use one speaker that does triple duty rather than multiple speakers with each performing its specialized function of producing speakerphone quality audio, producing ringing signals for alerting, and providing an audible indication of identity information so that it can be heard “away from the telephone terminal.” Fujioka, col. 1, line 27. (A1256) Dr. Sprang says that would have been the obvious approach, not “adding cost and size to the system by adding a second audio transducer that serves no useful purpose.” 1st

Sprang Declaration, para. 25. (A1732) He provides no evidence beyond this bare assertion that his proposed apparatus would be cheaper and smaller or that a “second audio transducer” for caller voice would “serve no useful purpose.”

It is also significant that Dr. Sprang’s testimony came after the patent owner’s expert provided a detailed technical explanation, supported by extensive documentary evidence comprising the relevant materials that would have been available to an ordinarily skilled telephone design engineer at the time of the invention, of exactly why a combination speakerphone as posited by the examiner would not have been cheaper and smaller, and that a separate speaker for caller voice would indeed “serve a useful purpose.” 1st Bress Declaration, para. 37; Bress Exhibits 4-10. (A1785-A1786; A1488-A1643) The 1st Sprang Declaration made *no* attempt to refute Mr. Bress’s testimony. Mr Bress reiterated and expanded on the same point in paragraph 44 of the 2nd Bress Declaration (A1789-A1790), and still Dr. Sprang had no answer in his Supplemental Declaration of Ralph Sprang dated November 14, 2013. (A1932-A1935) All of which leaves Mr. Bress’s testimony essentially uncontested. (The substance of Mr. Bress’s testimony is discussed at pages 45-46, *infra*.)

Dr. Sprang’s single paragraph 25 in the 1st Sprang Declaration on this issue is conclusory in the extreme, and fails to satisfy the *KSR* requirement that “there must be some articulated reasoning with some rational underpinning to support the

legal conclusion of obviousness.” 550 U.S. at 418. Merely asserting that a combination is better, more efficient, or cheaper, without articulated reasoning and documentary evidence, is not persuasive. *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312, 1328 (Fed. Cir. 2012); *see also K/S HIMPP*, 751 F.3d at 1365 (affirming the Board’s requirement that assertions of what is known in the prior art be supported by documentary evidence). Nor is it a matter of “common sense,” another often misapplied *KSR* concept, to use Fujioka’s speaker 6 or Gulick’s speaker 30 for all of the functions Dr. Sprang describes. *KSR*’s “common sense” does not mean what a layman might see as a matter of simple logic. Rather, it is “a shorthand label for knowledge so basic that it certainly lies within the skill set of an ordinary artisan.” *Mintz v. Dietz & Watson, Inc.*, 679 F.3d 1372, 1377 (Fed. Cir. 2012). *See also Trimed, Inc. v. Stryker Corp.*, 608 F.3d 1333, 1343 (Fed. Cir. 2010) (“Merely saying that an invention is a logical, commonsense solution to a problem does not make it so.”).

C. The PTAB Ignored the USPTO’s Own Guidelines for Supporting a Rejection Based on “Combining Prior Art Elements”

The PTAB failed even to follow the USPTO’s own guidelines for applying the *KSR* principle used to justify upholding the examiner. *Manual of Patent Examining Procedure* § 2143A (9th ed., March 2014) (“*M.P.E.P.*”). When a rejection is based on “Combining Prior Art Elements According to Known Methods To Yield Predictable Results,” the *M.P.E.P.* requires findings that (1) the

only difference between the claimed invention and the prior art is the lack of actual combination of the elements in a single prior art reference, (2) in combination, each element merely performs the same function as it does separately, and (3) one of ordinary skill in the art would have recognized that the results of the combination were predictable. “If any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious” *Id.*

This Court has said that the *M.P.E.P.* “describe[s] procedures on which the public can rely,” *In re Skvorecz*, 580 F.3d 1262, 1268 n. 3 (Fed. Cir. 2009), but the PTAB did not put forward anything even remotely resembling any of the findings required by the *M.P.E.P.* Nor did it explain what the predictable results of the claimed invention would be, or what “predictable results” means in a case that cannot support findings (1) and (2). Instead, the PTAB incorrectly placed the burden on the patent owner to establish that the results of the PTAB’s Fujioka/Gulick construction would have been unpredictable:

Patent Owner does not explain sufficiently how using a speaker that produces audio from different types of data in a telephone system would have been unpredictable or unexpected to one of ordinary skill in the art, particularly in view of such a disclosure by Gulick, for example.

Decision on Appeal at 7. (A8) But even so, Mr. Bress’s testimony, summarized at pages 45-46, *infra*, establishes that the complex technical requirements of speakers and related electrical circuitry for a Fujioka speakerphone capable of performing

the functions required by the prior art while using the same speaker for caller voice and associated identity announcement would have made the results of such a design unpredictable.

III. A PROPER OBVIOUSNESS ANALYSIS LOOKS AT THE PROBLEMS SOLVED BY THE CLAIMED INVENTION

KSR reinforced existing law on the importance of considering the problem addressed by an invention. The opinion begins with an extensive discussion of the problem addressed by the vehicle control pedal apparatus at issue, 550 U.S. at 406-409, and continues later:

One of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims.

50 U.S. at 419-20. The PTAB did not point to any known problem solved by the patented apparatus with its claimed audio announcing circuit.

Federal Circuit jurisprudence also stresses the importance of taking into account the problems solved by the invention and the references in the search for some reason to combine the references. *In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000) (“The test . . . is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art”); *see also Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1353 (Fed. Cir. 2013) (“As an initial matter, an invention can often be the recognition of a problem itself.”).

A. The Claimed Announcement Apparatus Solves a Problem Not Recognized by the Prior Art

The '695 patent recognized the existence of numerous problems with prior art Caller ID apparatuses, and provided a single constructional solution to all of them: the claimed audio announcing circuit that uses the same speaker for identity announcements and caller voice signals. The claimed announcement apparatus is capable of providing increased functionality to any standard telephone (and can be part of the telephone itself, meaning the announcement apparatus could be used in a cellular telephone. *See* claim 19; 2nd Bress Declaration, para. 35. (A1784-A1785)) It provides access to Caller ID services without requiring costly special telephones or separate Caller ID terminals, by announcing identity information on the caller voice speaker of any standard telephone located anywhere at a user's home, even a cordless telephone the user has taken outside the house. '659 patent, Abstract (A17); 2nd Bress Declaration, para. 5 (A1767).

The concept of using the same speaker for announcing associated identity information and caller voice signals, and the problems it solves, are found only in the '695 patent. The PTAB does not suggest that it would solve *any* problem to combine the function of producing caller voice with the function of announcing associated identity information. The examiner posited her modification of Fujioka in view of Gulick as "advantageously" providing Fujioka's telephone with "hands-free (speakerphone) telephone operation," without indicating how that

solves any problem related in any way to the apparatus described in the '695 patent claims, or to the problems it solves. RAN, at 13. (A1090)

B. A Person of Ordinary Skill Would Not Have Used a Single Speaker for Caller Voice Signals and Identity Information in a Fujioka/Gulick Hands-Free Speakerphone

Fujioka does not elaborate on the technical performance requirements for its speaker 6 and associated driving circuitry to perform their single, specialized function: to produce reasonably intelligible speech at a distance “away from the telephone” (for example, perhaps as far as 16m, but probably at least 4m). Designing a speaker and associated circuitry adequate to that single task would have been within the ability of a person of ordinary skill in speaker design. 1st Bress Declaration, para. 37; Bress Exhibit 4, paras. 4.5, 4.8 (A1442-A1443; A1490, A1491-A1492) Likewise, Gulick discloses a speaker (30) and driving circuitry (CODEC receiver 82, Fig. 9) used as a speakerphone voice speaker and a ringing tonal alerter, also without elaboration as to any technical performance requirements or specifications for the speaker or its associated circuitry. (A1286; A1293) Mr. Bress explains that a person of ordinary skill in the art would have been able to design or specify a speaker and associated driving circuitry for performing the standard speakerphone functions identified by Gulick, namely producing ringing tones and reproducing caller voice signals to be heard by the user close to the telephone. (For example, Gulick requires that the user be within

arm's length of the keypad 26 to activate hands-free speakerphone operation. Col. 3, lines 62-66. (A1295) Bress Exhibit 4, paras. 4.1-4.4 (A1488-A1490))

However, the engineering requirements for a speaker and circuitry appropriate for announcing associated identity information (as disclosed in Fujioka) and for a speaker and circuitry used for caller voice in a speakerphone and as a tonal alerter (as disclosed in Gulick) are mutually contradictory. Bress Exhibit 4, para. 4.9. (A1492) Dr. Sprang testified that the design goal would be to minimize the space and cost of the speaker system used in a Fujioka speakerphone. 1st Sprang Declaration, para. 25. (A1731-A1732) But Bress Exhibit 4, supported by the documentary evidence in Bress Exhibits 5-10 (A1494-1643), explains why a system design that would achieve Dr. Sprang's goal would not be predictable to a person of ordinary skill in the art. Mr. Bress explains that this is because of the conflicting performance requirements of Gulick's speaker 30, which would provide high fidelity speakerphone-quality speech for use near the telephone, and Fujioka's identity announcing speaker 6, which would produce high volume speech that need only be sufficiently intelligible "away from the phone" beyond the distance at which a visual display can be read. Mr. Bress shows that the daunting complexities of speaker design and telephone requirements make it unpredictable as to whether the cheapest, smallest system configuration in a combination telephone can be achieved with a single speaker.

The other side of the evidentiary ledger on this point is blank. Dr. Sprang never addressed any of Mr. Bress's technical evidence.

The patent owner fully appreciates that *KSR* says that the prior art need not solve the same problem as the patentee. 550 U.S. at 420. But here there is no prior art addressing any problem in a way that would have led to the claimed announcement apparatus, nor has the PTAB or the examiner pointed to any. The patent owner is also cognizant of the principle that obviousness does not require that “the inventions of the references be physically combinable to render obvious the invention under review.” *In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983), cited in the Decision on Appeal, at 8. (A9) It will be clear by now that this is not the patent owner's nonobviousness argument, but it is worth noting that the *Sneed* Court found in the prior art all of the limitations in the claims under review. *Id.*

IV. THE ASSOCIATION OF A SINGLE ITEM OF IDENTITY INFORMATION WITH PLURAL ITEMS OF CALLER IDENTIFICATION DATA IMPARTS PATENTABILITY TO CLAIM 14

The proper construction of the term “identity information” in claim 14 is an important threshold question in determining its patentability. The '695 patent is expired, making applicable the claim construction principles in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1329 (Fed. Cir. 2005), by which words of a claim “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention, rather than the

“broadest reasonable interpretation” typically applied in an *inter partes* reexamination. *Rambus Inc. v. Rea*, 731 F.3d at 1252.

The first time the examiner made any attempt to construe the claim term “identity information” was in the RAN. (A1107-A1108) The patent owner was denied the opportunity to respond. Decision Dismissing Petition to Waive § 1.116(f) Pursuant to § 1.183 dated April 10, 2014. (A1184-A1191)

A. The PTAB Misunderstood that the Patent Owner Agrees that Fujioka Teaches “Identity Information” Announcement

The PTAB erred in saying that the patent owner’s position is that “Fujioka and Gulick fail to disclose or suggest ‘identity information.’” Decision on Appeal, at 6. (A9) The patent owner had expressly agreed that Fujioka announces associated identity information using its separate speaker 6. Patent Owner Appeal Brief, at 8. (A1204)

B. The Examiner Erroneously Construed “Identity Information”

The RAN stated that “identity information” as used in claim 14 is “simply directed to an abstract concept of something that identifies, such as a name that identifies a phone number as a particular person.” The examiner also stated that an item of identity information is not “a physical item that can only exist in one place at one time (e.g., a particular section of a particular memory element containing a stored name, which is not recited in the claim).” RAN, at pages 30-31. (A1107-A1108)

A claim term is interpreted “not only in the context of the claim in which it appears, but in the context of the entire patent.” *Phillips v. AWH Corp.*, 415 F.3d at 1313. In addition, “Other claims of the patent in question . . . can also be valuable sources of enlightenment as to the meaning of a claim term.” *Id.* at 1314.

While the specification of the ‘695 patent does not use the exact term “identity information,” the language of claim 1 and the specification make it clear that the term “identity information” does not refer to an abstract concept. Claim 1’s processing unit is “operative to provide identity information . . . ,” and its audio announcing circuit is “operative to use the identity information.” The ordinary and customary meaning of “identity information” to one of ordinary skill in the art would include electrical signals, because identity information could not be “provided” by an electronic component and “used” by an electrical circuit if it were an abstract concept. *See, e.g.*, ‘695 patent, col. 8, lines 50-53 (“Execution jumps to process 368 where microcontroller 26 searches database 54 for stored audio”); *see also* col. 6, lines 23-25, and col. 8, lines 23-27, lines 40-43, and lines 56-63. (A26; A27)

The term “identity information” also appears in claim 2, which says that claim 1’s processing unit “comprises memory storage for storing identity information associated with the caller identification data.” ‘695 patent, col. 9, lines 39-42. (A28) Thus, the examiner is wrong; an item of identity information actually

is “a physical item that can only exist in one place at one time (e.g., a particular section of a particular memory element containing a stored name, which is not recited in the claim).”

The claim language of claim 1 itself uses the term “identity information” to mean a physical item that can only exist in one place at one time. Claim 2 goes even further, explicitly *defining* it as a physical item stored in a memory. The patent owner submits that there is no basis for interpreting it otherwise in claim 14. *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1343 (Fed. Cir. 2001) (“[A] claim term should be construed consistently with its appearance in other places in the same claim or in other claims of the same patent.”).

C. Nothing in Fujioka or Gulick Would Have Suggested Associating a Single Item of Identity Information with Plural Items of Caller Identification Data

Thus, the concrete “identity information” referred to in claim 14 refers to the single item of identity information explicitly claimed in claim 1. This is consistent with the ‘695 patent specification. ‘695 patent, col. 7, lines 31-32, col. 8, lines 3-4 (“Database 54 contains audio information keyed with an ICLID number or *a group of ICLID numbers*”; emphasis added). (A27)

A Fujioka user can make multiple entries of identity information into the memory 15 and key each separate entry against a different caller telephone number. For example, the name of an organization (“identity information”) can be

associated with the telephone number (“caller identification data”) of one caller belonging to that organization. Even if the process is repeated for more than one member of that organization, it still requires separate entries of the organization and the telephone number, and each entry results in a single item of identity information associated with a *single item* of caller identification data. Col. 3, lines 52-64. (A1257) That is not claim 14’s single item of identity information associated with *plural items* of caller identification data. Accordingly, Fujioka does not disclose the limitation in claim 14, nor would it have suggested how to do what is described in claim 14. Gulick does not discuss identity information at all.

Because the examiner erroneously construed “identity information,” this Court is requested to construe “identity information” according to the principles noted above, and then reverse the rejection based on the examiner’s assertion that “one item of ‘identity information’ is met by a particular name [an abstract concept], no matter how many times it may be recorded and stored in the system.” RAN, at page 30. (A1107)

V. THE RECORD ESTABLISHES THE RELEVANCE OF THE PATENT OWNER’S OBJECTIVE EVIDENCE TO THE PATENTABILITY OF THE CLAIMED INVENTION

Demaco Corp. v. F. Von Langsdorff Licensing, Ltd., 851 F.2d 1387 (Fed. Cir. 1988), sets forth the basic principles governing the treatment of objective evidence of patentability—so-called “secondary considerations.” First, “evidence

of secondary considerations must have been considered prior to reaching a conclusion on obviousness/nonobviousness.” *Id.* at 1391 (quoting *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1986)). *See also Apple, Inc. v. Int’l Trade Comm’n*, 725 F.3d 1356, 1366 (Fed. Cir. 2013) (“Secondary considerations evidence can establish that ‘an invention appearing to have been obvious in light of the prior art was not’ and may be the ‘most cogent evidence in the record,’” quoting *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d at 1349.

A. The Patent Owner’s Objective Evidence Establishes a Prima Facie Nexus With the Invention Described in Claims 2 and 14

Objective evidence is probative of patentability when there is a sufficient relationship (“nexus”) between the evidence and the patented invention. The burden of proof as to nexus resides with its proponent. *Demaco*, 851 F.2d at 1392. *Demaco* related to commercial success, but its principles are clearly applicable to all objective evidence:

When the thing that is commercially successful is not coextensive with the patented invention -- for example, if the patented invention is only a component of a commercially successful machine or process -- the patentee must show prima facie a legally sufficient relationship between that which is patented and that which is sold.

Id.

The patent owner’s evidence of record, set forth at pages 17-27, *supra*, establishes a prima facie nexus between all of the evidence and the particular

features of claim 2 and claim 14. The patent owner explained with painstaking particularity the connection between each item of evidence and the features of claim 2 in combination with claim 1's audio announcing circuit and claim 14 in combination with claim 1's audio announcing circuit.

While some of the ClassCo products referred to in the record objective evidence had features in addition to those claimed, such as a speaker in the product itself (corresponding to the speaker 32 in the housing shown in the figure at page 4, *supra*), the evidence relied upon by the patent owner is directed specifically to the features that confer patentability on the claimed apparatus and that are not shown in the prior art—all as required by *Demaco. Id.* at 1392 (“A prima facie case of nexus is generally made out when the patentee shows . . . that the thing (product or method) that is commercially successful is the invention disclosed and claimed in the patent”); *see also Rambus Inc. v. Rea*, 731 F.3d at 1258-59.

The PTAB apparently believed, erroneously, that the objective evidence about announcing identity information was directed to the housing speaker 32, which the PTAB may have equated with Fujioka's speaker 6. Decision on Appeal, at 10, 13, 14 (A11, A14, A15) But the PTAB may have been misled by Apple's suggestion at the oral hearing that the ClassCo products' housing speaker was the subject of the objective evidence. Record of Oral Hearing, at 22-23 (“The evidence here, every single piece of evidence, relates to this product that had a speaker in the

box [referring to page 37 of Apple's PowerPoint presentation [A2169)] that is different, not the claimed speaker . . ."). (A2126-A2127)

B. There is No Evidence Rebutting the Patent Owner's Prima Facie Case of Nexus

When the proponent has established a prima facie case of nexus, "the burden of coming forward with evidence in rebuttal shifts to the challenger, as in any civil litigation." *Id.* at 1393. This principle has been carried forward to *inter partes* reexaminations, in which the PTAB must point to evidence in the record that contradicts a patent owner's objective evidence. *Rambus Inc. v. Rea*, 731 F.3d at 1256-57 ("Rambus presented uncontested evidence of long-felt need and industry praise . . .; "The Board did not point to any contrary evidence [rebutting industry praise] . . ."; Board finding that licensing evidence lacked a nexus because "competitors have many reasons for taking licenses which are not necessarily related to unobviousness" was erroneous because the record lacked supporting evidence.).

Demaco further observes that "a [p]atentee is not required to prove as part of its prima facie case that the commercial success of the invention is *not* due to factors other than the patented invention," 851 F.2d 1394 (emphasis in original). The Court also took into account that the defendant "adduced no evidence to show that the paving stone's commercial success was due to any factor other than its patented structure."

Apple's only rebuttal to the patent owner's licensing evidence is that all of the licenses were entered into before claim 1 was canceled in the previous reexamination, implying that all of the licensing revenue is attributable to the features of claim 1, not those features in conjunction with those of claim 2 or 14. Respondent's Appeal Brief, at 20. (A2007) Just with regard to claim 2, Apple's argument relies on the fanciful premise (unsupported by evidence) that licensees would not have needed those licenses because their products did not have claim 2's memory. Mr. Luneau testified that the features of claims 2 and 14 were prime reasons why the licenses were taken" 2nd Luneau Declaration, para. 18. (A1821-A1822) And Apple is wrong on the facts: ClassCo received more than \$200,000 in royalties after claim 1 was canceled. *Id.*, para. 19.

The PTAB contends that the patent owner's evidence does not support the contention that Philips signed a license to market products because of the features of claims 2 and 14. The actual evidence, set forth at pages 20-23, *supra*, demonstrates that the PTAB is wrong. This Court has cautioned against this kind of nitpicking of a patent owner's objective evidence, especially evidence of licensing activities. *Institut Pasteur v. Focarino*, 738 F.3d at 1347 ("The Board too finely parsed Pasteur's licensing activities.").

C. Objective Evidence of Praise by Others, including in the Media and by Customers, is Entitled to Weight in an Obviousness Determination

Praise by others, including industry publications, general circulation publications, and individuals, is relevant objective evidence. *See, e.g., Institut Pasteur v. Focarino*, 738 F.3d at 1348 (technical articles); *Rambus Inc. v. Rea*, 731 F.3d at 1256-1258 (press releases; industry publications); *Apple, Inc. v. Int’l Trade Comm’n*, 725 F.3d at 1366 (praise of a consumer product in a general circulation publication—Time magazine naming the iPhone the 2007 “Invention of the Year”); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Drilling USA, Inc.*, 699 F.3d at 1340, 1349-1353 (customer preferences, industry praise in magazines); *Mintz v. Dietz & Watson, Inc.*, 679 F.3d at 1379 (praise by others).

Therefore, all of the patent owner’s objective evidence, not just that going to commercial success and licensing, meets this Court’s requirements for consideration in support of the nonobviousness of the claimed invention.

CONCLUSION AND STATEMENT OF RELIEF SOUGHT

For the foregoing reasons, ClassCo respectfully requests that the decision of the PTAB affirming the examiner’s obviousness rejections of claims 2-5, 7, 9, 10, 14, 17, 18, 23, 26-30, and 34 be reversed.

Date: September 23, 2015

Respectfully submitted,

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ADDENDUM

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
95/002,109	08/29/2012	6970695	14100.1003	7318

25099 7590 04/21/2015
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EXAMINER

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ART UNIT	PAPER NUMBER
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3992

MAIL DATE	DELIVERY MODE
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04/21/2015

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.,
Requester,

v.

CLASSCO INC.,
Patent Owner.

Appeal 2015-000186
Reexamination Control 95/002,109
Patent 6,970,695 B1
Technology Center 3900

Before STEPHEN C. SIU, DAVID M. KOHUT, and ERIC B. CHEN,
Administrative Patent Judges.

SIU, *Administrative Patent Judge.*

DECISION ON APPEAL

Appeal 2015-000186
Reexamination Control 95/002,109
Patent 6,970,695 B1

Patent Owner (Classco Inc.) appeals under 35 U.S.C. §§ 134 and 315 (pre-AIA) the Examiner's rejections of claims 2–5, 7, 9, 10, 14, 17, 18, 23, 26–30, and 34 over various grounds.¹ Claims 1, 11–13, 15, 16, 19–22, 25, 31–33, 35, and 36 are cancelled.² We have jurisdiction under 35 U.S.C. §§ 134 and 315. An Oral Hearing was conducted on March 11, 2015.

STATEMENT OF THE CASE

This proceeding arose from a request by Apple, Inc. (“Requester”) for an *inter partes* reexamination of claims of U.S. Patent 6,970,695 B1, titled “Calling Party Announcement Apparatus” and issued to David J. Luneau, on November 29, 2005 (“the ’695 patent”).

The ’695 patent describes a calling party announcement apparatus. Spec. Abstract.

Claim 2 reads as follows:

2. A caller announcement apparatus for a telephone system that provisions a telephone call between a caller telephone at a caller station and a called telephone at a called station, where the caller station is associated with an identity, where the telephone system provides signals to the called station that include caller identification signals representative of the identity associated with the caller station and voice signals representative of audio detected by an audio transducer of the caller telephone, and where the voice signals are processed by the called telephone

¹ We cite to “Patent Owner Appeal Brief” dated April 28, 2014 (“PO App. Br.”).

² *Ex Parte* Reexamination Certificate Issued Under 35 U.S.C. § 307.

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to produce audio using an audio transducer at the called station, the caller announcement apparatus comprising:

a signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding to the extracted caller identification signals;

a processing unit operatively connected to the signal receiver to receive caller identification data therefrom, the processing unit being operative to provide identity information associated with the caller identification data;

an audio announcing circuit operatively connected to the processing unit to receive identity information therefrom, the audio announcing circuit being operative to use the identity information to produce audio using the audio transducer at the called station,

wherein the processing unit comprises memory storage for storing identity information associated with the caller identification data.

The cited references are as follows:

Fujioka	US 4,894,861	Jan. 16, 1990
Gulick	US 5,199,064	Mar. 30, 1993
Marui	US 4,998,291	Mar. 5, 1991
Iwaya	JP H2-177648	July 10, 1990

Patent Owner appeals the following rejections:

- 1) Claims 2–5, 7, 9, 10, 14, 17, 18, 23, 26–30, and 34 under 35 U.S.C. § 103(a) as unpatentable over Fujioka and Gulick (RAN 3); and
- 2) Claims 2–5, 7, 9, 10, 14, 17, 18, 26–30, and 34 under 35 U.S.C. § 103(a) as unpatentable over the combination of Fujioka and Marui (RAN 11) or the combination of Iwaya and Gulick (RAN 18-19).

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ISSUE

Did the Examiner err in rejecting claims 2–5, 7, 9, 10, 14, 17, 18, 23, 26–30, and 34?

PRINCIPLES OF LAW

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

ANALYSIS

Fujioka and Gulick

The Examiner finds that “Fujioka does not specifically disclose outputting [the] call announcing audio signal with identity information through the same audio transducer that produces the voice signals received at the called station from the caller” but that “Gulick . . . teaches using the same audio transducer to output a ringing signal announcing an incoming call as well as the audio signal received from the caller (column 3, lines 3-16; column 9, lines 27-38).” RAN 4-5. The Examiner further finds that

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“[t]he combination of these known elements according to known methods would yield predictable results.” RAN 5. We agree with the Examiner.

For example, Fujioka discloses “transferring voice signals in the ISDN” to a speaker in handset 4 and “deriv[ing] the calling party’s name or . . . identification . . . and transfer[ring] it to” a speaker. Fujioka 5:34–36, 51–54, Fig. 3. Hence, Fujioka discloses speakers (in a telephone system) that produce audio derived from voice signals and audio derived from identity information. As Patent Owner’s declarant (Mr. James R. Bress) points out, Gulick discloses a speaker that produces audio derived from “tonal ringing call-alerting” and also from “caller voice signals.” Second Declaration of James R. Bress, dated October 15, 2013, “Bress 2nd Dec.,” ¶ 22. In other words, based on Gulick, one of ordinary skill in the art would have understood that a speaker in a telephone system may (and does) produce audio derived from multiple types of data in a telephone system, including “tonal ringing call-alerting” and “caller voice signals.”

We agree with the Examiner that the combination of the known disclosure of Fujioka of the use of speakers to produce audio derived from data in a telephone system (e.g., voice signals or identity information) with the known disclosure of Gulick that a speaker in a telephone system can produce audio derived from multiple types of data within a telephone system (e.g., voice signals or “tonal ringing call-alerting”) would have resulted in no more than the predictable result of the use of a speaker in the telephone system that produces audio derived from data in a telephone system, the data being any of voice signals, identity information, or “tonal ringing call-alerting,” for example. “The combination of familiar elements according to

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known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 416 (2007).

Patent Owner argues that Fujioka and Gulick fail to disclose “outputting both associated identity information and the call itself from the same speaker” and that it would not have been obvious to one of ordinary skill in the art to have combined the teachings of Fujioka and Gulick because, according to Patent Owner, “using the same speaker for associated identity information and caller voice signals is not necessary to . . . [provide] ‘a non-handset external speaker output . . . [to] enable the called person to communicate with the caller in a hands-free . . . manner’.” PO App. Br. 12, 22. We need not consider whether it would have been “necessary” or not for one of ordinary skill in the art to have used a “same speaker,” because the inquiry is whether it would have been *obvious* to one of ordinary skill in the art and not whether it would have been *necessary* to one of ordinary skill in the art to have combined the teachings of Fujioka and Gulick. We are not persuaded by Patent Owner’s arguments.

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined the known features of Fujioka and the known features of Gulick to achieve a predictable result because, according to Patent Owner, “the methods of combining” “the known ‘elements’ [of Fujioka and Gulick]” “are not ‘known’ from the prior art” and the Examiner fails to “explain[] what the term ‘predictable results’ means in the present context.” PO App. Br. 13, 16. We are not persuaded by Patent Owner’s arguments. As previously described, we agree with the Examiner

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that it would have been within the purview of one of ordinary skill in the art, having produced audio associated with various types of data in a telephone system (e.g., either voice data or identification data) with speakers of Fujioka to have produced audio from either one of voice data or identification data with speakers, particularly given the disclosure by Gulick that producing audio derived from multiple types of data in a telephone system with a speaker was known to one of ordinary skill in the art.

For at least the previously stated reasons, we also are not persuaded by Patent Owner's argument that the combination of Fujioka and Gulick would not result in a "predictable result." As previously discussed, we agree with the Examiner that such a combination would have resulted in a predictable result. Patent Owner does not explain sufficiently how using a speaker that produces audio from different types of data in a telephone system would have been unpredictable or unexpected to one of ordinary skill in the art, particularly in view of such a disclosure by Gulick, for example.

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to have combined the teachings of Fujioka and Gulick because "Fujioka [discloses] loudspeaker 6" and "Gulick . . . use[s] the same loudspeaker . . . which would be a third speaker." PO App. Br. 15 (citing Bress Dec. ¶ 22). Hence, Patent Owner appears to argue that it would not have been obvious to one of ordinary skill in the art to have bodily incorporated Gulick into Fujioka. We are not persuaded by Patent Owner's argument at least because "[t]he test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference.... Rather, the test is what the combined

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teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). *See also In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) (“[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.”); and *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the teachings of references does not involve an ability to combine their specific structures.”).

Regarding claim 14, Patent Owner argues that the Examiner misconstrued the term “identity information” and that under a proper construction of the term, Fujioka and Gulick fail to disclose or suggest “identity information.” *See*, e.g., PO App. Br. 24–25. Patent Owner notes that “the specification of the ’695 patent nowhere uses the exact term ‘identity information’” but argues that the proper construction of the term “identity information” is “not . . . an abstract concept,” is “concrete ‘identity information’,” and “does not mean two separate items of identity information that are related to two caller station identities.” PO App. Br. 24, 25. We agree with the Examiner that Fujioka, for example, discloses “identity information.” Fujioka discloses that “the central processing unit derives the calling party’s name . . . corresponding to the originating subscriber’s number in the memory 15.” Fujioka 5:51–54. Patent Owner does not explain sufficiently how the “calling party’s name,” for example, differs from the claimed “identity information.” In both cases, the information indicates an “identity” (e.g., a name).

Patent Owner argues that “ClassCo products” correspond to the claimed invention and that the “ClassCo products” received industry praise.

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Based on this alleged “praise,” Patent Owner contends that the claimed invention would not have been obvious to one of ordinary skill in the art. PO App. Br. 27–28. In particular, Patent Owner argues that the “ClassCo products” was praised by “[a]n article in *N.H. Business Review*, July 31-Aug. 1998 (Luneau Exhibit 1)” for “the ability to produce identity information over the same speaker used for caller voice signals (claim 1), the ability to store identity information (claim 2), and the ability to associate one item of identity information with plural telephone numbers (claim 14).” PO App. Br. 27–28. Patent Owner cites additional articles as allegedly “praising” claim features of the ’695 patent. PO App. Br. 28–29 (citing Teleconnect Magazine, October 1995, at pages 40–41 (Luneau Exhibit 2); Computer Telephony, July 1996, at page 114; The Dallas Morning News (the Archive), Oct. 20, 1998 (Exhibit 4); “Testimonials from purchasers collected in Luneau Exhibit 3”; and “news releases collected in Luneau Exhibit 5”). We are not persuaded by Patent Owner’s arguments.

Patent Owner’s declarant (Mr. David J. Luneau) testifies that the claimed invention received praise (Second Declaration of David J. Luneau, dated October 15, 2013, “2nd Luneau Dec.,” 5 (citing *N.H. Business Review*)). Specifically, Dr. Luneau testifies that *N.H. Business Review* describes a phone system (presumably, the claimed invention) that “can store between 20-40 names” and enables a user to “listen to the voice announcement coming from the box via the phone itself” so that the user “can choose to either take the call or let it continue on to the answering machine.” First, *N.H. Business Review* appears to merely state objectively the alleged features of the phone system rather than providing “praise.”

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Even if such objective statements could be construed as “praise,” we are still not persuaded by Patent Owner that such “praise” is sufficient to refute the prima facie showing of obviousness of the claimed invention over the prior art. For example, Patent Owner does not demonstrate or assert that the ability of the system to “store between 20-40 names” or producing a “voice announcement coming from the box via the phone itself” is recited in the claims. In other words, Patent Owner does not demonstrate a sufficient nexus between the alleged “praise” and the claimed invention. In addition, as previously discussed, storing identification data and producing a voice announcement (i.e., audio corresponding to identification data of a caller) is disclosed by Fujioka. Under these circumstances, the alleged “praise” stems from what was known in the prior art so that there can be no nexus. *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011).

Mr. Luneau also cites the following:

- 1) Teleconnect Magazine, October 1995 as stating that the telephone device has a “switch marked ‘handset’” that enables the user to “lift the handset without ‘answering the call’” and that pressing the “RECORD button” enables the user to “record [a] five-second voice announcement that will be used . . . to announce this caller”;
- 2) Computer Telephony, July 1996, as stating that the user may “record a voice message for up to 20 different numbers” and that the system “play[s] the name of the caller” when the user picks up the phone;
- 3) The Dallas Morning news, October 20, 1998, as stating that the system includes “Full Caller ID,” that the system can “introduce

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[a] number when it comes through,” that “the call will be announced through the handset” when using a cordless phone, and that the “machine stores the numbers for 64 incoming calls”;

4) A Philips news release, April 1995, that states that the system is a “voice-capable caller ID unit”, “can store up to 30 names available for voice announcing” “can also store multiple phone numbers for the same name,” and “works with existing telephone sets”;

5) A second Philips news release, January 1996, as stating that the system “stores up to 30 recorded names or numbers,” “works with existing telephone sets, including cordless telephones,” and allows “the user to hear who’s calling even from outside the home.

2nd Luneau Dec. 6, 8, 9.

We disagree with Patent Owner that these objective statements of features of the alleged telephone system constitute “praise” in the context of obviousness of the claimed invention. Even if any of these statements constitute such “praise,” Patent Owner does not assert or demonstrate sufficiently that any of the stated features (e.g., “lifting the handset without ‘answering the call’” or “record[ing a] five-second voice announcement” upon depression of a “RECORD button,” for example) is recited in the claims. In other words, we agree with the Examiner that Patent Owner has not demonstrated a sufficient nexus between the alleged “praise” and the claimed invention.

Patent Owner also argues that “there is also evidence of long-felt need in the industry.” PO App. Br. 28. Specifically, Patent Owner argues that “Caller ID customers with ClassCo products were highly satisfied, more so

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than users of other Caller ID devices, and Luneau Exhibit 1 makes it clear that the reason was because they incorporated features claimed in the '695 patent." PO App. Br. 23 (citing Luneau Exhibit 1, Second Luneau Declaration, at paras. 10). First, Patent Owner provides insufficient evidence to demonstrate persuasively that customers were, indeed, "highly satisfied" and to what extent the customers were "satisfied." Second, even if customers were "satisfied" to a sufficient extent, Patent Owner does not explain how the level of customer satisfaction correlates with a "long-felt need in the industry." Indeed, the level of satisfaction of customers does not appear to relate to whether or not there was a long-felt need in the industry. Most importantly, however, even if customers were sufficiently "satisfied" and that the level of customer satisfaction was somehow indicative of a "long-felt need in the industry," Patent Owner provides insufficient evidence of a nexus between a specific claimed feature and any potential "long-felt need in the industry."

Patent Owner argues commercial success of "'ClassCo products' with the features in claim 2 (via claim 1) and claim 14." PO App. Br. 29–30 (citing Second Luneau Declaration, at ¶¶ 12–17). Mr. Luneau testifies that he "consider[s] the sales volumes and growth of market share of ClassCo products . . . to be strong evidence of the commercial success of ClassCo products." 2nd Luneau Dec. ¶ 16. However, even if Mr. Luneau is correct that "ClassCo's share of that [\$82,000,000] market was 0.8%" and that "ClassCo products held a 3.7% share [of a \$31,000,000 market]" (2nd Luneau Dec. 15) and even if such market share values constituted "commercial success" in the context of secondary considerations of non-

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obviousness of the claimed invention, we are still not persuaded by Patent Owner's arguments for at least the reasons set forth by the Examiner and Requester. RAN 32–33, 3PR Resp. Br. 17–20. For example, Mr. Luneau states that the market included “total number of units capable of audible announcement based on Caller ID” but does not demonstrate that the claims recite the system as “capable of audible announcement based on Caller ID.” Therefore, Patent Owner does not demonstrate a sufficient nexus between the alleged commercial success and the claimed invention. Even if the claims recited that the system has “audible announcement based on Caller ID,” we note that Fujioka discloses, for example, a telephone system “for notifying an originating party's number” and provides “an audible indication of the ID information corresponding to the registered subscriber's number.” Fujioka, Abstract. Hence, at best, the alleged commercial success would stem from a feature disclosed in the prior art so that there can be no nexus. *Tokai Corp. v. Easton Enters., Inc.*, 632 F.3d 1358, 1369 (Fed. Cir. 2011).

Patent Owner argues that “the features of claim 2 (via claim 1) and claim 14 were primary reasons why Philips took a license from ClassCo” and that “the features of claim 2, particularly the audio announcing circuit and memory storage, were prime reasons why the licenses were taken.” PO App. Br. 30 (citing 2nd Luneau Dec. ¶¶ 18–19 and “Luneau Exhibit 5”). We have carefully reviewed Patent Owner's “Luneau Exhibit 5” and we do not find specific evidence demonstrating why “Philips took a license from ClassCo” and what specific claim features caused Philips to take the alleged license(s), if any. To the extent that “audio announcing” and “memory storage” were the reasons for the license, as seemingly alleged by Patent

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Owner, we note that Fujioka discloses “an audible indication of the ID information corresponding to the registered subscriber’s number” (i.e., “audio announcing”) and “memory 15” (i.e., “memory storage”). Fujioka, Abstract; Fig. 2. As explained previously, reasons stemming from features disclosed in the prior art are insufficient to demonstrate a nexus between the alleged reasons and the claimed invention.

Other appealed grounds

Patent Owner also appeals the rejection of claims 2–5, 7, 9, 10, 14, 17, 18, 26–30, and 34 as unpatentable over Fujioka and Marui or over Iwaya and Gulick. We do not address these additional rejections because the affirmance of the rejection for claims 2–5, 7, 9, 10, 14, 17, 18, 26–30, and 34 as unpatentable over Fujioka and Gulick render it unnecessary to reach the propriety of the Examiner’s decision to reject those claims on a different basis. *Cf. In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009).

CONCLUSION

We affirm the Examiner’s decision to reject claims 2–5, 7, 9, 10, 14, 17, 18, 23, 26–30, and 34 under 35 U.S.C. § 103(a) as unpatentable over Fujioka and Gulick.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). Requests for extensions of time in this *inter partes* reexamination proceeding are governed by 37 C.F.R. § 1.956. *See* 37 C.F.R. § 41.79.

In the event neither party files a request for rehearing within the time provided in 37 C.F.R. § 41.79, and this decision becomes final and

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appealable under 37 C.F.R. § 41.81, a party seeking judicial review must timely serve notice on the Director of the United States Patent and Trademark Office. *See* 37 C.F.R. §§ 90.1 and 1.983.

AFFIRMED

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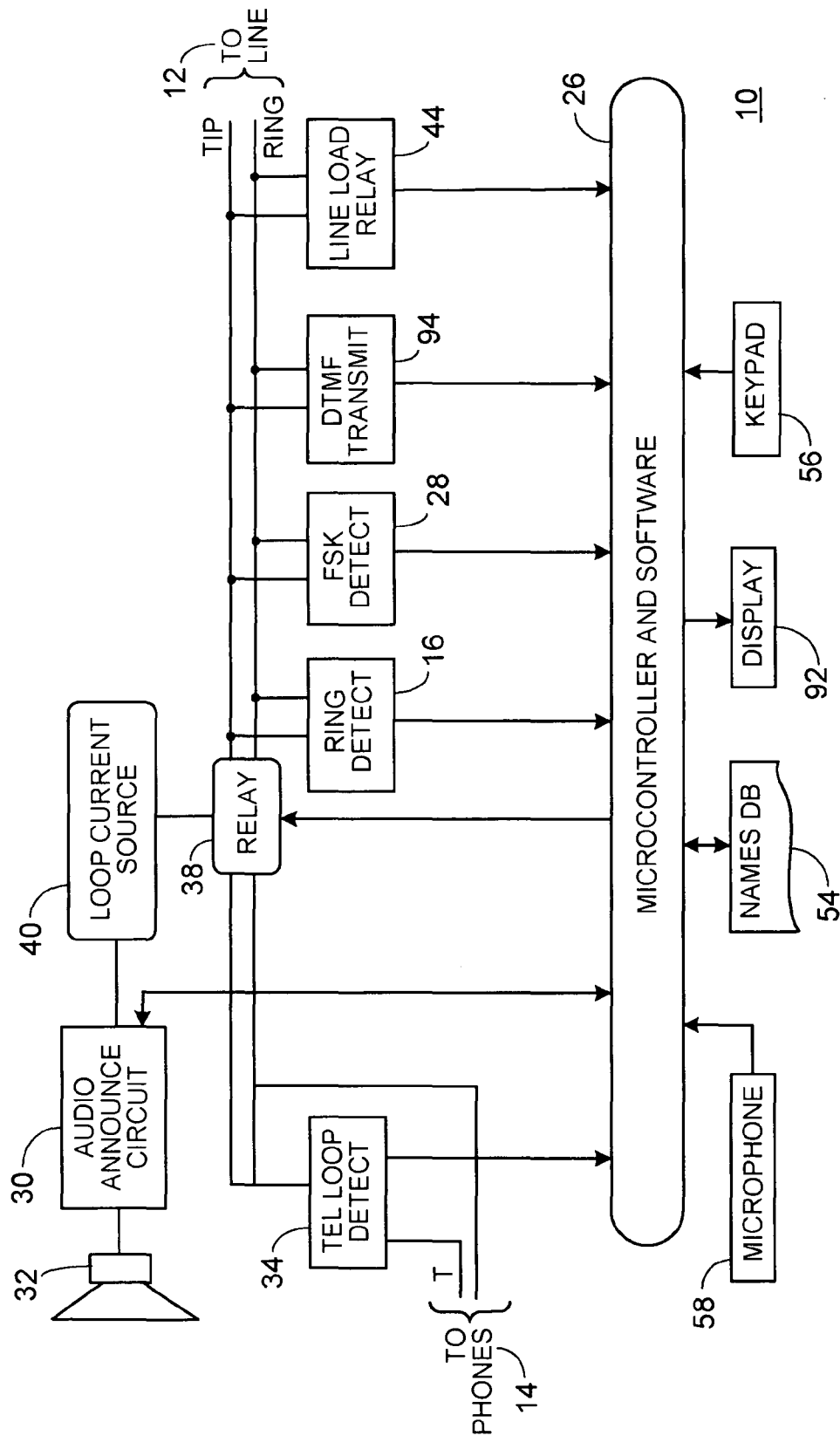


FIG. 1

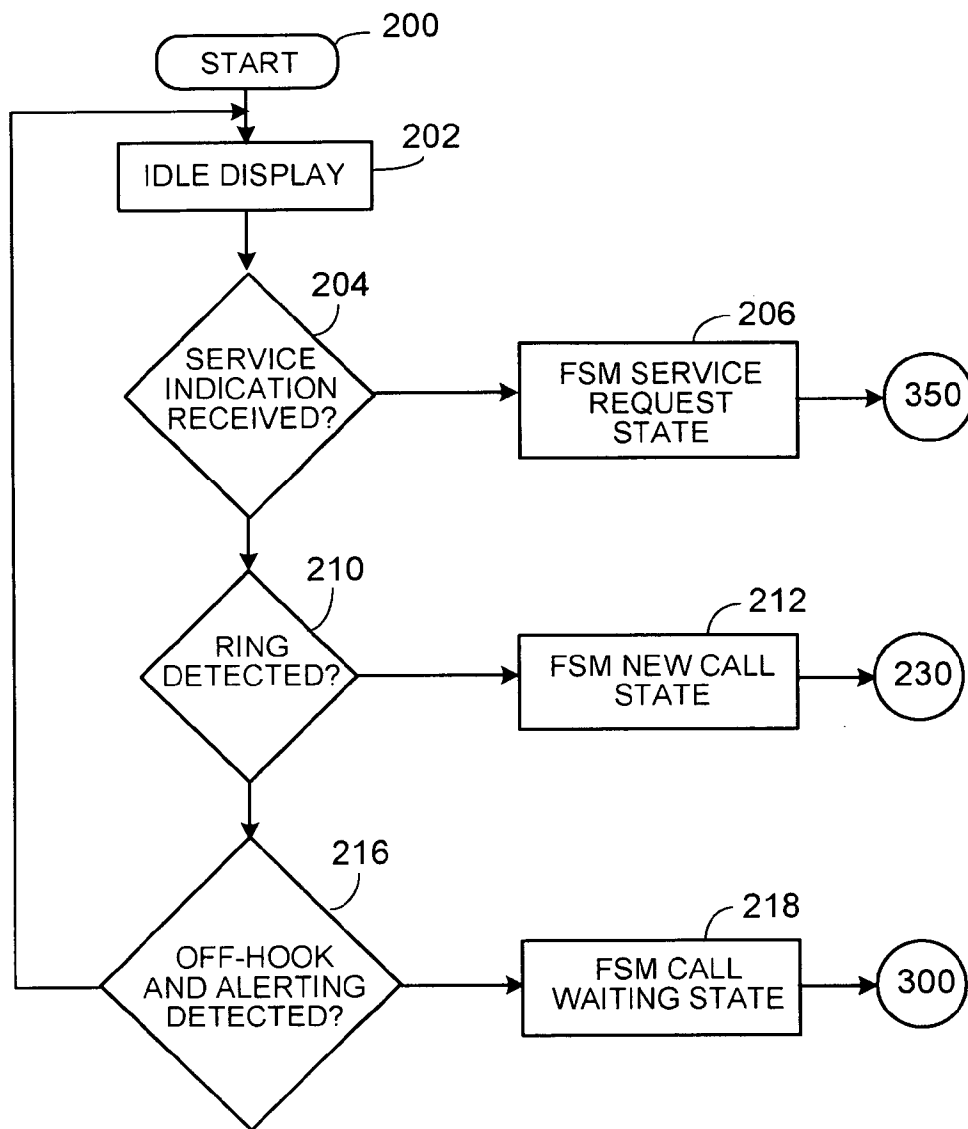


FIG. 2

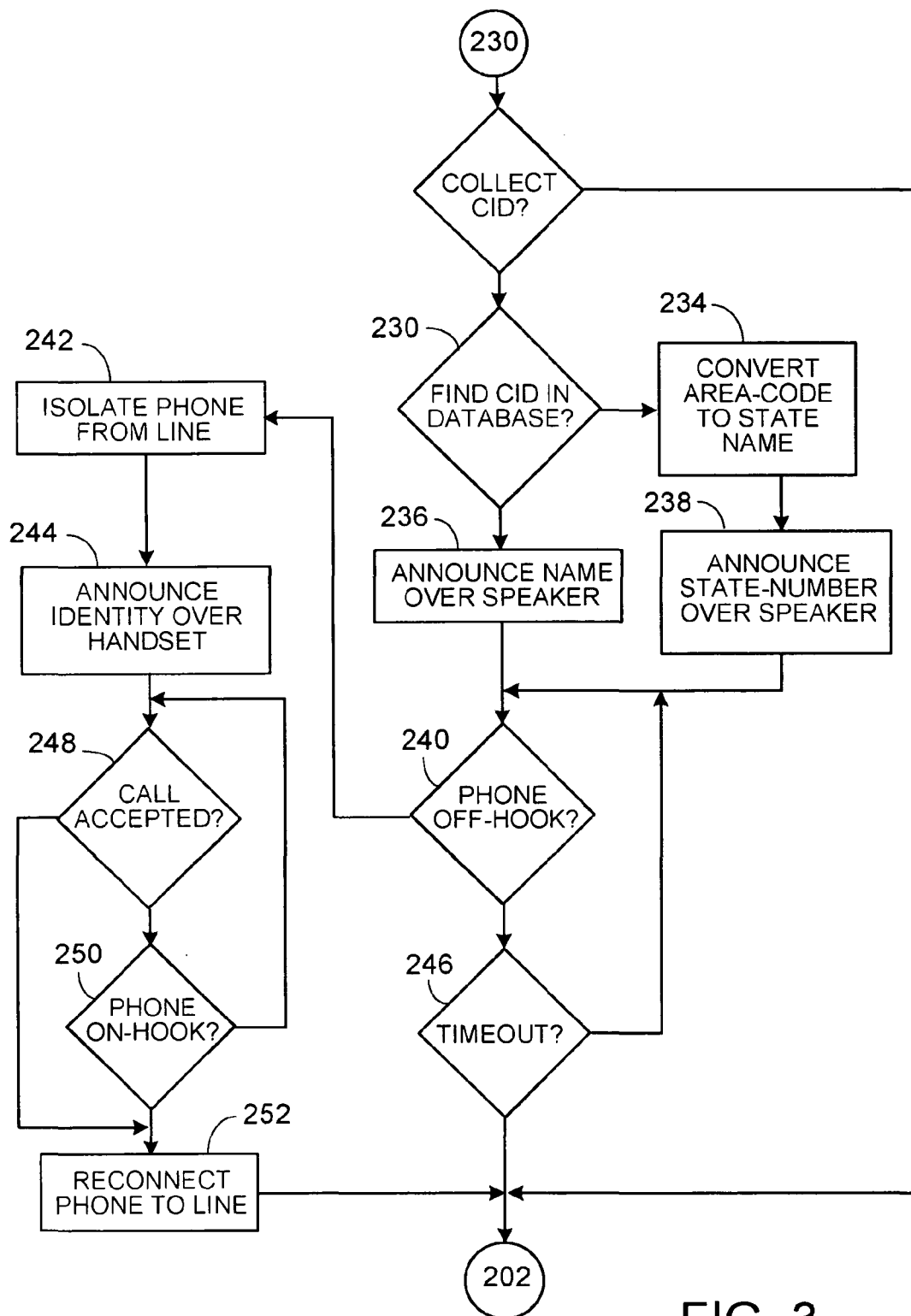


FIG. 3

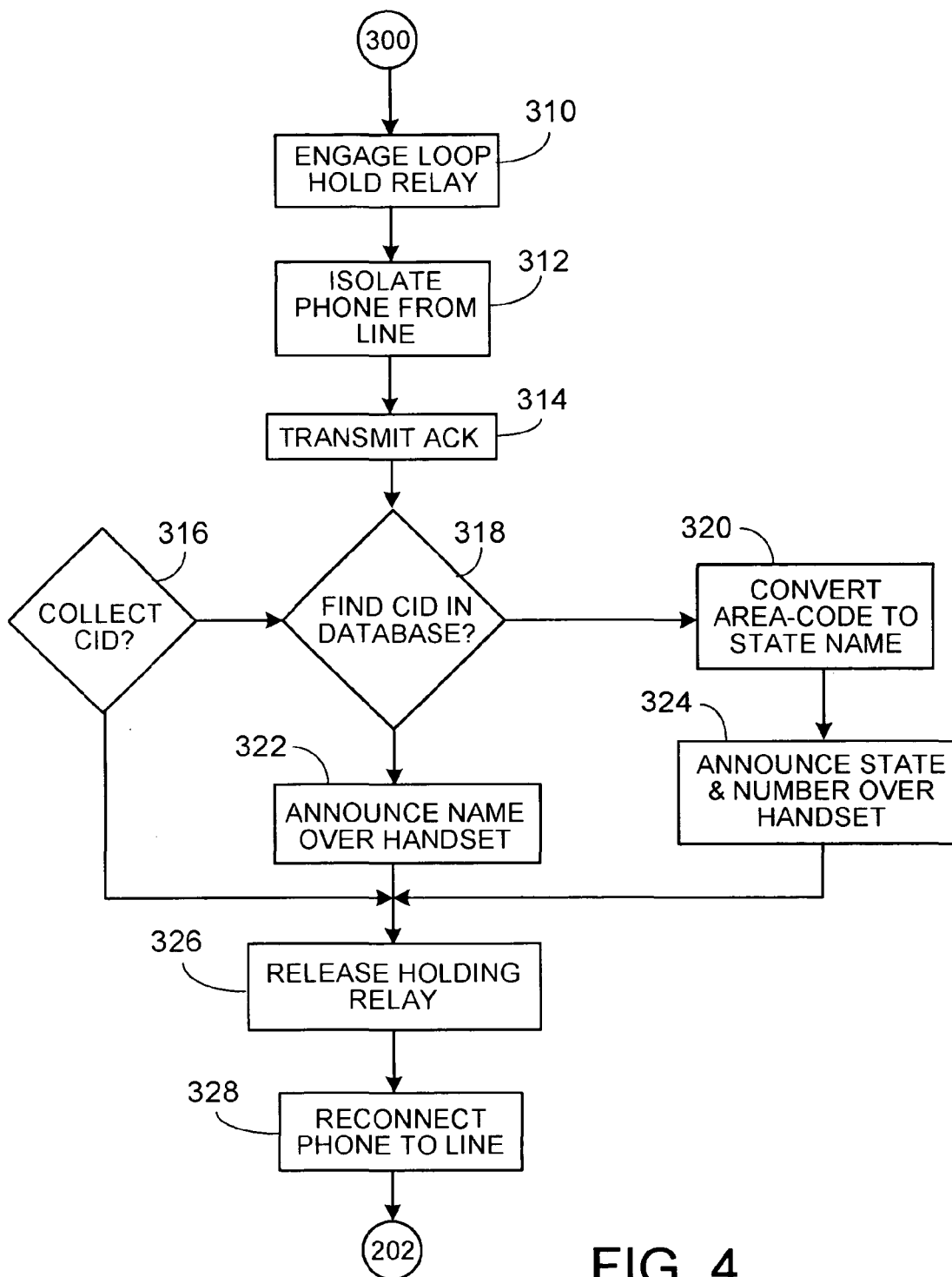
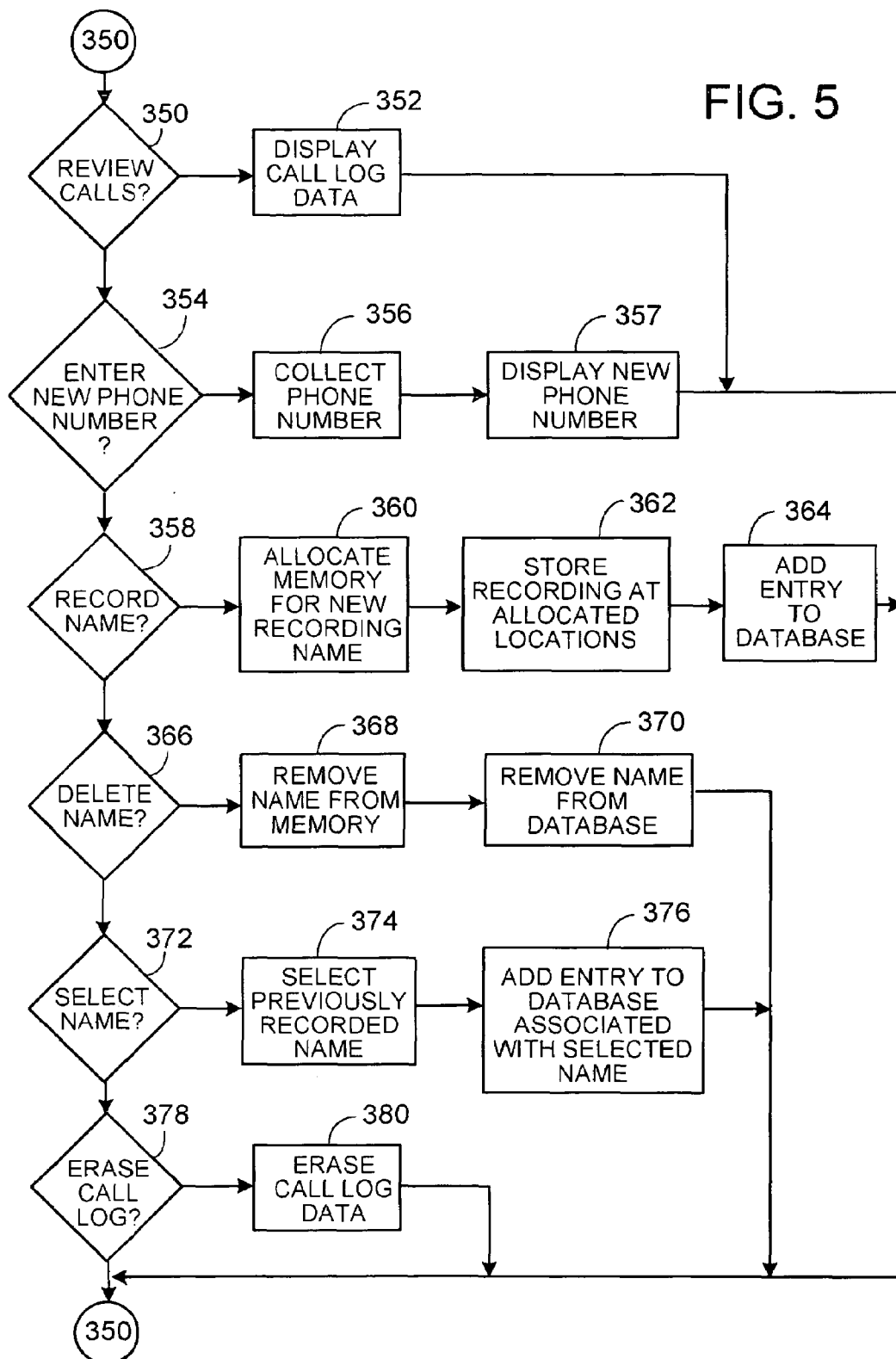


FIG. 4

FIG. 5



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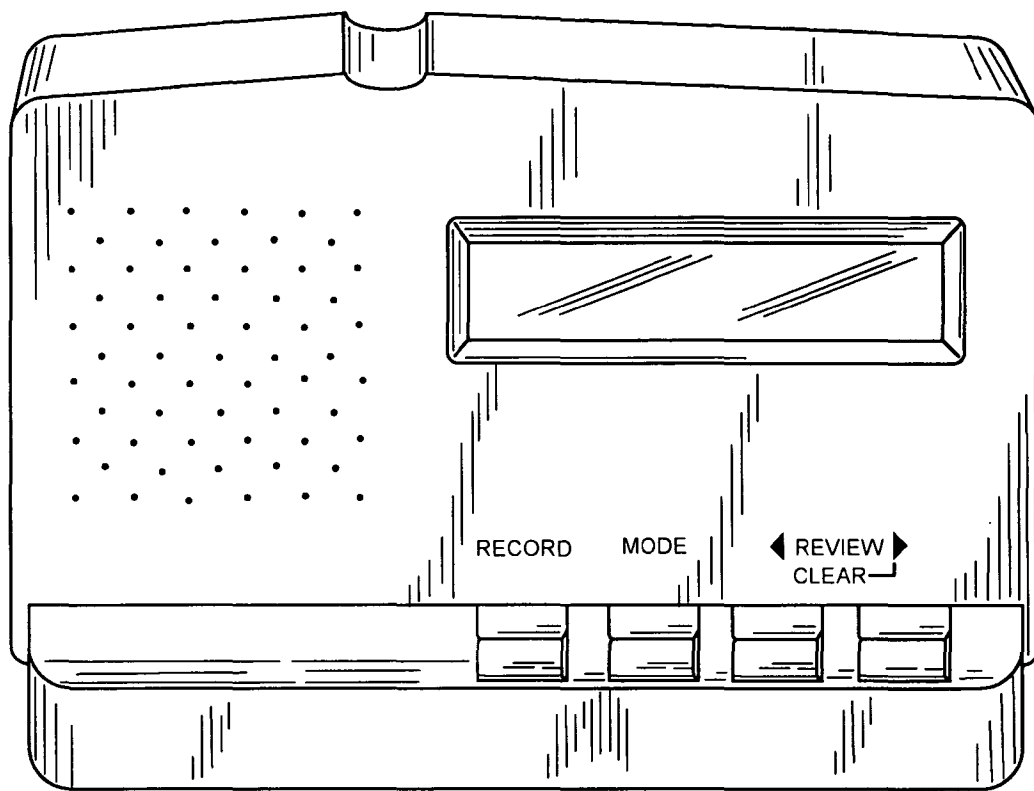


FIG. 6

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**CALLING PARTY ANNOUNCEMENT
APPARATUS**

This application is a continuation of Ser. No. 08/660,814 filed Jun. 10, 1996, now U.S. Pat. No. 6,038,443, which is a Continuation-in-Part of U.S. patent application Ser. No. 08/303,534, filed Sep. 9, 1994 now U.S. Pat. No. 5,526,406, and U.S. patent application Ser. No. 07/827,262, filed Jan. 29, 1992, now abandoned.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

The invention relates to an apparatus that identifies incoming telephone calls and allows the called party to accept or reject the call before the telephone company has connected the two parties together.

2. Description of the Related Art

Changes in the North American telephone network have opened the door to new services available to business and residential customers. In particular, CLASS (Caller ID, Return Call, Call Block, Repeat Call, Priority Call, and Select Forward) services have been made possible, in part, by the deployment of a common channel interoffice signaling system called SS7. This signaling system brings information about the call to points in the telephone network not previously available. For example, the identity of the calling party is made available, electronically, to the called party.

The Caller ID feature particularly promises a series of novel and useful benefits to the telephone subscriber. The telephone number of the calling party is made available such that it can be presented to the called party. Of particular note is the fact that the data representing the calling party number is transmitted before the called party has answered, officially completing the connection.

To date, the majority of subscriber owned and provided devices used to receive and interpret the data containing the calling party's number make use of some sort of visual display to convey the information to the user. Some devices do not display the data but make it available in a form which can be accepted by a personal computer.

In U.S. Pat. No. 4,582,956, issued Apr. 15, 1986 to Carolyn A. Doughty, a method is disclosed to display special information about a call, such as the calling party's telephone number. The method does not provide means for vocalized announcement of the number or association with any other information about the caller.

In U.S. Pat. No. 4,924,496, issued May 8, 1990 to Romek Figa, an incoming call number display is described that permits the called party to view the name or number of the caller. Although the invention provides means to associate the caller's number with a name, it does not provide means for vocalized announcement.

In U.S. Pat. No. 5,054,055, issued Oct. 1, 1991 to John P. Hanle, a system is disclosed to pass the calling party's number sent by the telephone office to a computer system. While common hardware and software components are available to announce the caller's identity, provision is not made for announcement over the answered telephone set, nor is it an object of such to implement a call announcement apparatus.

In U.S. Pat. No. 4,720,848, issued Jan. 19, 1988 to Tadahiko Akiyama, a system is disclosed to render information about an incoming call. While vocalized announcement is achieved over the telephone set, a special telephone office switch or private branch exchange (PBX) is necessary.

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Similar implementations are disclosed in U.S. Pat. No. 4,899,358, issued Feb. 6, 1990, and U.S. Pat. No. 5,007,076, issued Apr. 9, 1991, both to James R. Blakely. Such implementations provide all vocalized announcement means via apparatus located at the telephone office switch or PBX, and are not designed as small business or residential premise equipment on trunks provisioned with the Caller ID enhanced service feature.

A variety of products are available that do not utilize the Caller ID enhanced service feature but instead screen incoming calls by querying the caller for a name or number after the telephone connection has been established. U.S. Pat. No. 4,304,968, issued Dec. 8, 1981 to Klausner et al, discloses such an apparatus that answers the incoming telephone call and directs the caller to enter his or her telephone number using the telephone set tone keypad. Next, the device performs a search through a database of callers before ringing the premise extensions and announcing the caller's name. Such a device not only requires cooperation from the calling party to enter the telephone number but may result in a billed toll call since the call has actually been answered.

There is not found in the prior art a single-line customer premise apparatus that transmits the name or number of the calling party audibly through a speaker, and via the telephone itself. In prior art devices which provide a visual display, the subscriber must be within viewing distance, and the subscriber must purchase and install units for each extension telephone. A caller ID apparatus that can serve all telephones on the premises as well as being used with cordless telephones and "speaker" phones is not found, nor is there available that meets the requirements mentioned herein that is compatible with the "Caller ID" and "Caller ID with Call Waiting" enhanced service features available from a growing number of telephone companies.

SUMMARY OF THE INVENTION

It is an aspect of the invention to provide a calling party announcement apparatus that audibly identifies the calling party to the called party over the telephone set.

It is also an aspect of the invention to provide a calling party announcement apparatus that audibly identifies the calling party to the called party over a speaker.

It is also an aspect of the invention to audibly identify the calling party to the called party prior to the telephone company delivering the call.

It is another aspect of the invention to receive the Incoming Call Line Identification (ICLID) signal and announces the caller's telephone number based on the contents of such signal.

It is another aspect of the invention to receive the ICLID signal and announces the name of the caller based on a database reference to the caller's telephone number contained in such signal.

It is another aspect of the invention to receive the ICLID signal and announces the name of the state where the call originates based on a database reference to the caller's area code contained in such signal.

It is another aspect of the invention to audibly identify the calling party to the called party on lines provisioned with Caller ID with Call Waiting.

It is another aspect of the invention to operate in a manner whereby the calling party is unaware is installed.

It is another aspect of the invention to provide audible Caller ID delivery over any or all telephone sets sharing the same telephone line.

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It is another aspect of the invention to extend the Caller ID service to visually impaired subscribers.

It is another aspect of the invention to provide a calling party announcement apparatus that can be centrally located in the subscriber's premises.

It is another aspect of the invention to provide a calling party announcement apparatus that does not lead to fewer call completions and works with auto-answering devices such as answering machines, modems, and faxes.

It is another aspect of the invention to provide a calling party announcement apparatus that works with cordless and speaker telephone sets.

It is another aspect of the invention to provide a calling party announcement apparatus that is easy to install in a home or office with little knowledge of telephone wiring.

It is another aspect of the invention to provide a calling party announcement apparatus that will not interfere with outbound calling, emergency calls, call waiting, or other special telephone subscriber services.

It is another aspect of the invention to provide a calling party announcement apparatus that will block unwanted calls.

It is another aspect of the invention to provide a calling party announcement apparatus that displays the local date and time.

It is another aspect of the invention to provide a calling party announcement apparatus that displays the name and telephone number of incoming telephone calls.

It is another aspect of the invention to provide a calling party announcement apparatus that provides a log book of incoming calls.

It is another aspect of the invention to provide a calling party announcement apparatus that will not require special provisions at the telephone central office for name database access or announcement apparatus.

It is another aspect of the invention to provide a calling party announcement apparatus that is compatible with Bellcore specifications for data transmission used on Caller ID service and Caller ID with Call Waiting service.

It is a final aspect of the invention to provide a calling party announcement apparatus that allows the subscriber customize the announcement of the calling party's name.

The invention is a calling party announcement apparatus for a telephone system which provides audible identification of incoming calls to subscriber's telephone sets connected to said system. Detecting means, connected between said system and said telephone set, is provided for detecting the caller's identification signals. Central processing means for processing said line identification signal outputs a signal corresponding to the identity of the caller. Isolation means for isolating an engaged telephone set from the telephone company central office switch. Loop current means for establishing a telephone current loop condition to power the isolated telephone set. Announcing means for transforming the identity signal provided by said central processing means produces and audible signal that announces the caller's identity over a speaker and over the engaged telephone set.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a block diagram of the system including all functional components in accordance with the invention.

FIG. 2 is a flow chart showing the microcontroller processing software in the MAIN routine.

FIG. 3 is a flow chart showing the microcontroller processing software for handling NEW CALL calls.

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FIG. 4 is a flow chart showing the microcontroller processing software for handling CALL WAITING calls.

FIG. 5 is a flow chart showing the microcontroller processing software for SERVICE, such as adding a caller to the name database.

FIG. 6 is a rendering of the invention shown in its housing.

DETAILED DESCRIPTION OF THE INVENTION

The invention makes it possible to screen incoming telephone calls. The invention is an improvement over Caller ID-equipped telephone sets, Caller ID display terminals, and telephone-company based call screening subscription services. The invention is installed in the customer premises, such as a residence or office, between the telephone service demarcation point and the telephone sets. The invention is compatible with standard telephone sets, including cordless and speaker telephones. The invention is also compatible with standard analog telephone subscriber trunks. The invention is also compatible with standard Incoming Caller Line Identification "ICLID", which is commonly known as Caller ID. Caller ID is an enhanced subscriber service offered by local telephone companies for a nominal monthly charge.

For an incoming call, the invention captures the ICLID signal during the quiet period following the first ring. The invention converts the ICLID data to an audible signal representative of the caller's identity. This could be the caller's name, or phone number, or even the name of the caller's state (i.e. "New Hampshire"). The caller's identity is announced right away over a built-in speaker, identifying the caller prior to answering a telephone.

After the telephone is answered, the invention announces the caller's name or telephone number over the telephone set by way of a locally generated current source. The telephone company central office is unaware that the telephone was answered and continues to return the ringback indication to the calling party and ring voltage to the subscriber's service demarcation point.

The called party can elect to accept the call by flashing the telephone's hook switch or touching a specific key on the telephone keypad. Once the call is accepted, the caller and called parties are connected and normal telephone operation is restored.

The called party can reject the incoming call by hanging up the telephone. If the call is rejected, and the caller continues to wait for an answer, ringing is restored, but the Caller ID is not announced again. This provides an opportunity for telephone answering devices to accept the call. It also gives the called party another chance to accept the call.

The invention supports identification of incoming calls that arrive while the subscriber's telephone set is engaged with another call. Many telephone users subscribe to a service called "Call Waiting" for handling incoming telephone calls while the subscriber's telephone set is busy or engaged. On telephone lines provisioned with "Caller ID with Call Waiting" service, the invention detects the Caller ID information following the Call Waiting alerting tone, and identifies the waiting call by announcing the waiting caller's identity over the engaged telephone. Only the called party hears this announcement.

The invention decodes the Caller-ID information according to Bellcore technical documents for Calling Party Name and Number Delivery, and Calling Party Name and Number Delivery with Call Waiting.

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No special provisions are necessary at the telephone company central office switching system other than for Bellcore-standard Caller-ID which is now available in generic software packages from all major switching system manufacturers.

A significant technical aspect of the invention is its ability to deliver an audible announcement of the caller's identity over a standard telephone without the call being "answered". The call is not connected nor is it billed by the telephone company until the called party or a telephone answering device, such as an answering machine, accepts the call.

Preventing the telephone company central office from detecting the "off-hook" condition is achieved by isolating the telephone sets from the telephone company central office at precisely the moment the telephone set is engaged. In the preferred embodiment, this is done by energizing a relay that breaks the connection to the central office after the telephone is answered but before the central office has detected the off-hook condition. Clearly, in another embodiment, this invention can take advantage of common provisions, such as the radio frequency (RF) interface in cordless telephones, that physically isolate the remote handset from the telephone network not otherwise intended for purposes of audible off-hook Caller-ID delivery.

While the off-hook telephone is isolated from the telephone company central office, the telephone is connected to a loop current supply internal to the invention. The loop current supply is necessary to power the off-hook telephone set while providing the audible announcement over the receiver.

Recent advances in speech storage and compression techniques make it possible to integrate "off-the-shelf" speech devices to provide the audible announcement of the caller's identity. It is not the aspect of the invention to promote a special speech technology, but rather to be able to take advantage of such generic technology, including text-to-speech technology, as it becomes available.

The power ringing signal is provided directly by the telephone company central office. The invention does not block or regenerate the ring signal. This attribute is particularly important for subscribers of other custom calling services, such as "distinctive ringing". The invention's means for detecting a telephone off-hook condition and isolating the telephone from the telephone company central office is designed specifically so as not to interfere with ringing.

FIG. 1 illustrates a block diagram of the system including all functional components in accordance with the invention. Invention 10 is connected to the telephone network at connection point 12, typically an RJ-11 "modular" telephone jack common to most telephones. All telephone sets served by the invention are connected at point 14, also typically an RJ-11 jack. While in the idle or power-down state, double pole double throw relay 38 is in the position that connects the Tip and Ring leads at point 12 to the Tip and Ring leads at point 14. While the unit is under power, the state of relay 38 is under microcontroller 26 software control. Microcontroller 26 is a general purpose programmable embedded microcontroller such as an Intel 8051 and includes the software stored in ROM. Microcontroller 26 has links to telephone loop detector 34, ring detector 16, FSK decoder 28, DTMF transmitter 94, microphone 58, keypad 56, relay 38, pre-loading circuit 44, announcement circuit 30, LCD display 92, and database 54. Database 54 contains audio records keyed to ICLID numbers. Database 54 is stored in non-volatile RAM or "Flash" memory accessed by microcontroller 26.

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The telephone central office alerts the device to an incoming call by applying either a ring voltage to Tip and Ring leads at point 12, or transmitting an alerting tone used for Call Waiting. Ring detector 16 detects the ring voltage and alerting tone as it is applied by the telephone central office and indicates such to microcontroller 26. In the preferred embodiment, Ring Detector 16 consists of a Siemens model HI11AA1 opto-isolator for detecting bi-phase power ringing, and a MITEL model MT8843 call waiting detector for detecting the new call alerting tone.

FSK Decoder 28 detects frequency shift keyed (FSK) signals present at the Tip and Ring leads at point 12 (connected to the telephone central office). The FSK data contains the ICLID information transmitted from the telephone central office. The FSK data from the output of decoder 28 is presented to microcontroller 26. MITEL's MT8843 is preferably used as decoder 28.

Keypad 56 is provided for the user interface. In the preferred embodiment, keypad 56 is a series of four tactile keys used for selecting programming modes, recording audio to corresponding caller id records, and reviewing calls stored in a call log.

Microphone 58 is used for receiving audio signals to be stored by the microcontroller and associated with corresponding caller id records. In the preferred embodiment, microphone 58 is an electret microphone.

DTMF transmitter 94 transmits Dual Tone Multiple Frequency (DTMF) signals onto the Tip and Ring leads at point 12 (connected to the telephone central office). The DTMF signal transmitted from the analog output of transmitter 94 is controlled by microcontroller 26, and is used for interacting with telephone company central office switching system protocols used during Caller ID on Call Waiting. Mitel's model MT-8888 is preferably used as transmitter 94.

Loop detector 34 detects the presence of loop current through the telephone sets. The output of detector 34 is presented to microcontroller 26. Siemens model HI11AA1 is preferably used for loop detector 34.

Announcement circuit 30 supplies a small signal announcement into current source 40 and to speaker 32. Announcement circuit 30 is controlled by microcontroller 26. Announcement circuit 30 is factory-programmed with static prompts representing the numbers 0-9, phrases "number unknown" and "number blocked", as well as the names of the fifty US States. Each of these announcements, as well as announcements to be recorded by the user, can be individually addressed by microcontroller 26. Information Storage Devices' model ISD2575 is preferably used along with an audio amplifier LM386 for announcement circuit 30.

Current source 40 amplifies the audio signal for playing the caller's identity into relay 38 for announcement over the telephone sets attached at point 14. Current source 40 is preferably an current source LM317 biased to provide a nominal 28 mA of current through an off-hook telephone set attached at point 14.

Loading circuit 44 is used to hold the primary call stable while call waiting calls are audibly identified over telephone sets attached at point 14. In the preferred embodiment, a high voltage transistor such as MPSA42 is used to selectively engage the line at point 12 by sinking 28 mA from the telephone line.

FIG. 2 illustrates the main software process executed by microcontroller 26. A Finite State Machine (FSM) process is used to control the invention. The primary states of the FSM are STARTUP, SERVICE, NEW CALL, and CALL WAITING states.

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Process **200** is a startup routine for the selected microcontroller **26** used to set up interrupt vectors, serial modes, and hardware configuration. Process **200** is entered following power-up or reset of the invention and sets the FSM to the STARTUP state. Execution continues to process **202**. Relays **38** and **44** are de-energized. Dynamic call records are initialized and elements about the last call are preserved. The number of calls stored in a call log, along with the local time and date, is displayed on an attached LCD display **92**.

Process **204** monitors the status of keypad **56**. When a service request is made by the user by pressing any of the keys, execution branches to process **206** where the FSM transitions to SERVICE state and branches to process **350**. Otherwise execution continues at process **210**. Process **210** checks the result of polling ring detector **16** for a new call indication. A new call is indicated when detector **16** detects a power ring signal, whereby execution branches to process **212** where the FSM transitions to the NEW CALL state and branches to process **230**. Otherwise, execution continues at process **216**. Process **216** checks the result of polling ring detector **16** for a call waiting indication. A call waiting is indicated when detector **16** detects an alerting tone, whereby execution branches to process **218** where the FSM transitions to the CALL WAITING state and branches to process **300**. Otherwise, execution loops back to process **202**.

FIG. **3** illustrates the NEW CALL state process. The process begins at **230** where the ICLID signal is collected by FSK detector **28** and the data sent to microcontroller **26** for storage in the call log of database **54**. Process **232** searches database **54** for a match to the collected ICLID number. Database **54** contains audio information keyed with an ICLID number or a group of ICLID numbers. If the ICLID data is not provided by the telephone company or the ICLID number is blocked by the calling party, microcontroller **26** identifies the calls as "number unknown" or "number blocked" respectively. Process **232** branches based on the status of the search through database **54**. If the search returned a zero value, execution branches to process **234**, where the area-code from the ICLID number is cross-referenced with the name of a state and at process **238** microcontroller **26** directs announcement circuit **30** to speak the name of the state and the ICLID number, typically the caller's telephone number. If the database **54** search was successful, execution branches to process **236** and microcontroller **26** directs announcement circuit **30** to speak the audio returned from the search. Process **240** checks the state of loop detector **34** for an off-hook condition. If an off-hook condition is detected before process **246** determines a timeout, processing jumps to **242**. If a timeout is detected, processing jumps back to **202**. Process **242** isolates the off-hook phone from the line by engaging relay **38** and applying loop current **40**. Process **244** causes circuit **30** to announce the caller's identity over the off-hook telephone set. Processes **248** and **250** look for the call to be accepted with a hook-flash or rejected with a hang-up by checking loop detector **34** before disengaging relay **38** and re-establishing connection to the line at process **252**. Finally, control is returned back to process **202**.

FIG. **4** illustrates the CALL WAITING state process. The process begins at **300** after detecting the alerting tone, by engaging load relay **44** to hold the line off-hook at process **310** and then engaging isolation relay **38** in process **312**. In process **314**, an ACK tone (typically DTMF-D) is transmitted back down the line towards the telephone company switch to indicate that the device is ready to receive ICLID data. In process **316**, ICLID signal is collected by FSK detector **28** and the data sent to microcontroller **26** for

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storage in the call log of database **54**. Process **318** searches database **54** for a match to the collected ICLID number. Database **54** contains audio information keyed with an ICLID number or a group of ICLID numbers. If the ICLID data is not provided by the telephone company or the ICLID number is blocked by the calling party, microcontroller **26** identifies the calls as "number unknown" or "number blocked" respectively. Process **318** branches based on the status of the search through database **54**. If the search returned a zero value, execution branches to process **320**, where the area-code from the ICLID number is cross-referenced with the name of a state and at process **324** microcontroller **26** directs announcement circuit **30** to speak the name of the state and the ICLID number, typically the caller's telephone number. If the database **54** search was successful, execution branches to process **322** and microcontroller **26** directs announcement circuit **30** to play the audio returned from the search over the off-hook telephone. Process **326** releases loading relay **44** after the announcement concludes. Processes **328** disengages relay **38** and re-establishes conversation with the primary caller. Finally, control is returned back to process **202**.

FIG. **5** illustrates the SERVICE state processes. The SERVICE processes are used to add audio announcements to the database, erase audio announcements, select previously recorded announcements to be associated with a new telephone number, review the call log, erase the call log, and to manually enter a telephone number for further recording.

Process **350** checks keypad **56** for review call log requests. Execution jumps to process **352** to review calls in the log by recalling call log information from database **54** and displaying the call log information on display **92**. Execution then returns to process **202**.

Process **354** checks keypad **56** for manual entry requests. Execution jumps to process **356** where the phone number is collected using keypad **56**. At process **357**, the entered number is displayed on display **92**. Execution then returns to process **202**.

Process **358** checks keypad **56** for record name requests. Execution jumps to process **360** where microcontroller **26** allocates memory in database **54** for storing an audio recording to be associated with the presently displayed ICLID information. Process **362** enables microphone **58** to receive the audio signal and record the audio signal in the allocated memory. Process **364** then adds a record to database **54** that keys the displayed ICLID information with the address of the newly recorded audio. Execution then returns to process **202**.

Process **366** checks keypad **56** for delete name requests. Execution jumps to process **368** where microcontroller **26** searches database **54** for stored audio associated with the presently displayed ICLID information. Process **370** erases the database reference to the displayed ICLID information. Execution then returns to process **202**.

Process **372** checks keypad **56** for select name requests. Execution jumps to process **374** where the user selects from previously recorded audio to be associated with the presently displayed ICLID information. Process **376** directs microcontroller **26** to add a database record associating the displayed ICLID information with the selected audio recording. This processing enables multiple telephone numbers to be associated with the same audio recording. Execution then returns to process **202**.

Process **378** checks keypad **56** for erase call log requests. Execution jumps to process **380** where microcontroller **26** clears the call log data stored in database **54** and the call log counter is set to zero. Execution then returns to process **202**.

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While there have been described what are at present considered to be the preferred embodiments of this invention, it will be obvious to those skilled in the art that various changes and modifications may be made therein without departing from the invention and it is, therefore, aimed to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. A caller announcement apparatus for a telephone system that provisions a telephone call between a caller telephone at a caller station and a called telephone at a called station, where the caller station is associated with an identity, where the telephone system provides signals to the called station that include caller identification signals representative of the identity associated with the caller station and voice signals representative of audio detected by an audio transducer of the caller telephone, and where the voice signals are processed by the called telephone to produce audio using an audio transducer at the called station, the caller announcement apparatus comprising:

- a signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding to the extracted caller identification signals;
- a processing unit operatively connected to the signal receiver to receive caller identification data therefrom, the processing unit being operative to provide identity information associated with the caller identification data;
- an audio announcing circuit operatively connected to the processing unit to receive identity information therefrom, the audio announcing circuit being operative to use the identity information to produce audio using the audio transducer at the called station.

2. The caller announcement apparatus of claim 1 wherein the processing unit comprises memory storage for storing identity information associated with the caller identification data.

3. The caller announcement apparatus of claim 2 wherein the processing unit upon receiving caller identification data extracts from the memory storage the identity information associated with the caller identification data.

4. The caller announcement apparatus of claim 2 wherein the processing unit is operative to add, delete, and edit identity information stored in the memory storage.

5. The caller announcement apparatus of claim 1 further comprising:

- an isolation circuit operative to prevent the telephone system from completing the telephone call from the caller telephone to the called telephone while the audio announcement circuit is producing audio using the audio transducer at the called station.

6. The caller announcement apparatus of claim 5 wherein the isolation circuit is operative to prevent the telephone system from recognizing that the telephone at the called station is off hook while the audio announcement circuit is producing audio using the audio transducer at the called station.

7. The caller announcement apparatus of claim 5 wherein the isolation circuit is further operative to cause the telephone system to complete the telephone call from the caller telephone to the called telephone in response to an input from a party at the called station.

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8. The caller announcement apparatus of claim 7 wherein the isolation circuit is further operative to cause the telephone system to recognize that the called telephone is off hook in response to an input from the party at the called station.

9. The caller announcement apparatus of claim 1 wherein the caller identification data includes a telephone number associated with the caller station.

10. The caller announcement apparatus of claim 1 wherein the identity information associated with the caller identification data includes information corresponding to a name associated with the caller station.

11. The caller announcement apparatus of claim 1 wherein the identity information associated with the caller identification data is audio information corresponding to a name associated with the caller station.

12. The caller announcement apparatus of claim 11 wherein the audio information corresponding to the name associated with the caller station is recorded audio information.

13. The caller announcement apparatus of claim 12 wherein the recorded audio information corresponding to the name associated with the caller station is recorded by a user of the called telephone.

14. The caller announcement apparatus of claim 1 wherein the identity information is associated with plural items of caller identification data.

15. The caller announcement apparatus of claim 1 wherein the identity information associated with the caller identification data is information corresponding to a geographical location associated with the caller station.

16. The caller announcement apparatus of claim 15 wherein the identity information associated with the caller identification data is audio information corresponding to a geographical location associated with the caller station.

17. The caller announcement apparatus of claim 1 wherein the identity information associated with the caller identification data is information corresponding to a telephone number associated with the caller station.

18. The caller announcement apparatus of claim 17 wherein the audio announcing circuit includes a speech synthesizing circuit to produce synthesized speech of the telephone number associated with the caller station using the audio transducer at the called station.

19. The caller announcement apparatus of claim 1 wherein the apparatus is a part of the called telephone.

20. The caller announcement apparatus of claim 19 wherein the called telephone is a cordless telephone.

21. The caller announcement apparatus of claim 1 wherein the apparatus is a part of a computer system.

22. The caller announcement apparatus of claim 1 wherein the apparatus is a part of a computer-telephony interface board.

23. The caller announcement apparatus of claim 1 wherein the apparatus is a part of a telephone answering device.

24. The calling party announcement apparatus of claim 1 wherein there are a plurality of called telephones at the called station, and wherein the apparatus is interconnected to the plurality of called telephones.

25. In a telephone system that provisions a telephone call between a caller telephone at a caller station and a called telephone at a called station, where the caller station is associated with an identity, where the telephone system provides signals to the called station that include caller identification signals representative of the identity associated with the caller station and voice signals representative

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of audio detected by an audio transducer of the caller telephone, and where the voice signals are processed by the called telephone to produce audio using an audio transducer at the called station, a method of announcing an identity associated with the caller station at the called station, the method comprising:

extracting caller identification signals from the signals received at the called station from the telephone system;

providing caller identification data corresponding to the extracted caller identification signals;

processing the caller identification data to provide identity information associated with the caller identification data;

using the identity information to produce audio using the audio transducer at the called station.

26. The method of claim **25** further comprising:

storing identity information associated with the caller identification data.

27. The method of claim **26** wherein the processing step comprises extracting stored identity information associated with the caller identification data.

28. The method of claim **25** further comprising:

preventing the telephone system from completing the telephone call from the caller telephone to the called telephone while the audio announcement circuit is producing audio using the audio transducer at the called station.

29. The method of claim **28** further comprising:

enabling the telephone system to complete the telephone call in response to an input from a party at the called station.

30. The method of claim **25** wherein the caller identification data includes a telephone number associated with the caller station.

31. The method of claim **25** wherein the identity information associated with the caller identification data includes information corresponding to a name associated with the caller station.

32. The method of claim **31** wherein the identity information associated with the caller identification data is audio information corresponding to a name associated with the caller station.

33. The method of claim **32** further comprising:

recording the audio information corresponding to the name associated with the caller station.

34. The method of claim **25** wherein the identity information associated with the caller identification data is information corresponding to a geographical location associated with the caller station.

35. A caller announcement apparatus for a telephone system that provisions a telephone call between a caller station and a called station, where the telephone system provides signals to the called station that include caller

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identification signals, and wherein the telephone system further provides signals to the called station that include voice signals representative of audio detected by an audio transducer at the caller station, and wherein the voice signals are processed at the called station to produce audio using an audio transducer at the called station, wherein the audio transducer at the called station is a component of a called telephone at the called station, the caller announcement apparatus comprising:

a signal receiver at the called station operatively connected to the telephone system to receive signals therefrom, the signal receiver being operative to extract caller identification signals from the signals received from the telephone system and to provide caller identification data corresponding to the extracted caller identification signals;

memory storage for storing audio identity information associated with the caller identification data;

a processing unit operatively connected to the signal receiver to receive caller identification data therefrom, the processing unit being operative to access the memory storage to retrieve stored audio identity information associated with the caller identification data;

an audio announcing circuit operatively connected to the processing unit to receive retrieved audio identity information therefrom, the audio announcing circuit being operative to use the retrieved audio identity information to produce audio using the audio transducer at the called station.

36. In a telephone system that provisions a telephone call between a caller station and a called station, where the telephone system provides signals to the called station that include caller identification signals, and wherein the telephone system further provides signals to the called station that include voice signals representative of audio detected by an audio transducer at the caller station, and wherein the voice signals are processed at the called station to produce audio using an audio transducer at the called station, a method comprising:

extracting caller identification signals from the signals received at the called station from the telephone system;

providing caller identification data corresponding to the extracted caller identification signals;

storing audio identity information associated with the caller identification data;

using the caller identification data to retrieve stored audio identity information;

producing audio using the retrieved audio identity information wherein the audio is produced using the audio transducer in a called telephone at the called station.

* * * * *

(12) **EX PARTE REEXAMINATION CERTIFICATE (9053rd)**
United States Patent
Luneau

(10) **Number:** **US 6,970,695 C1**

(45) **Certificate Issued:** ***Jun. 5, 2012**

(54) **CALLING PARTY ANNOUNCEMENT APPARATUS**

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Reexamination Request:

No. 90/011,679, May 9, 2011

Reexamination Certificate for:

Patent No.: **6,970,695**
 Issued: **Nov. 29, 2005**
 Appl. No.: **10/042,686**
 Filed: **Mar. 14, 2000**

(*) Notice: This patent is subject to a terminal disclaimer.

Related U.S. Application Data

(63) Continuation of application No. 08/660,814, filed on Jun. 10, 1996, now Pat. No. 6,038,443, which is a continuation-in-part of application No. 08/303,534, filed on Sep. 9, 1994, now Pat. No. 5,526,406, and a continuation-in-part of application No. 07/827,262, filed on Jan. 29, 1992, now abandoned.

(51) **Int. Cl.**
H04M 11/00 (2006.01)

(52) **U.S. Cl.** **455/415**; 379/88.21; 379/142.01

(58) **Field of Classification Search** None
 See application file for complete search history.

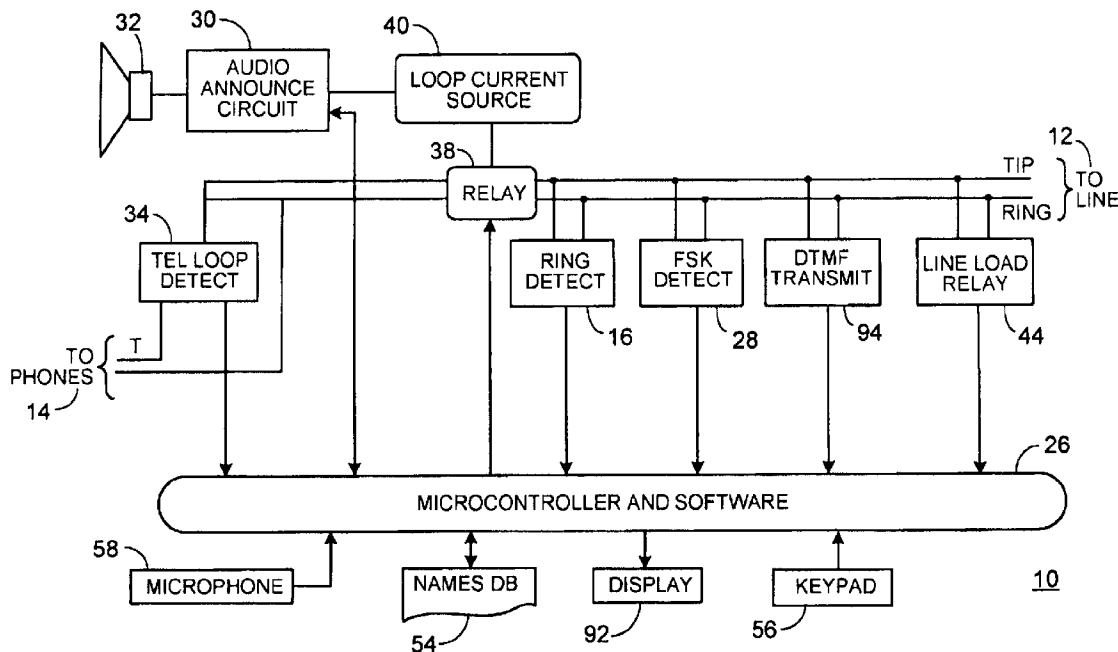
(56) **References Cited**

To view the complete listing of prior art documents cited during the proceeding for Reexamination Control Number 90/011,679, please refer to the USPTO's public Patent Application Information Retrieval (PAIR) system under the Display References tab.

Primary Examiner—Roland Foster

(57) **ABSTRACT**

A calling party announcement apparatus that provides the identity of the caller in synthesized human speech. The invention captures the Incoming Caller Line Identification (ICLID) signal sent by the telephone company. The invention announces the calling party's identity to the called party through a built-in speaker and over the telephone receiver. The called party can elect to accept or reject the call before the telephone company central office has connected the two parties together. The invention makes it possible to screen incoming telephone calls without the aid of a special Caller ID telephone set or auxiliary Caller ID display terminal. The invention is installed in the customer premises, such as a residence or office, between the telephone line demarcation point and the telephone sets. The invention is compatible with any standard telephone set and subscriber trunks provisioned with the Caller ID enhanced customer feature. One of the most important features of the invention is its ability to deliver a vocalized announcement of the caller's identity over a standard telephone set's receiver without the call having actually been declared answered by the telephone company, and without the caller having been cut through. The call is not considered "answered" nor is it billed by the telephone company unless the called party or a telephone answering device, such as an answering machine, accepts the call.



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**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

2

The patentability of claims **2-4, 9, 10, 14, 17, 18, 26, 27, 30 and 34** is confirmed.

Claims **1, 11-13, 15, 16, 19-22, 25, 31-33, 35** and **36** are cancelled.

⁵ Claims **5-8, 23, 24, 28** and **29** were not reexamined.

* * * * *

CERTIFICATE OF FILING AND SERVICE

I hereby certify that on this 23rd day of September, 2015, I caused this Brief of Appellant to be filed electronically with the Clerk of the Court using the CM/ECF System, which will send notice of such filing to the following registered CM/ECF users:

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Upon acceptance by the Clerk of the Court of the electronically filed document, the required number of copies of the Brief of Appellant will be hand filed at the Office of the Clerk, United States Court of Appeals for the Federal Circuit in accordance with the Federal Circuit Rules.

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